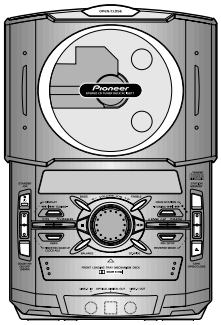
Service Manual



ORDER NO.
RRV2148

CD TUNER DECK
XC-IS21T

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Type	Model	Power Requirement	Remarks
	XC-IS21T		
ZUCXJ	O	DC power supply from other system	

● **This product is a system(s) component.**
This product does not function properly when independent; to avoid malfunctions, be sure to connect it to the prescribed system component(s), otherwise damage may result.

Component	System	Service Manual	Remarks
	IS-21T		
CD TUNER DECK	XC-IS21T	RRV2148	This service manual
STEREO POWER AMPLIFIER	M-IS21	RRV2143	
SPEAKER SYSTEM	S-IS21	RRV2141	

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1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING
This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

IMPORTANT

THIS PIONEER APPARATUS CONTAINS LASER OF CLASS 1.
SERVICING OPERATION OF THE APPARATUS SHOULD BE DONE BY A SPECIALLY INSTRUTED PERSON.

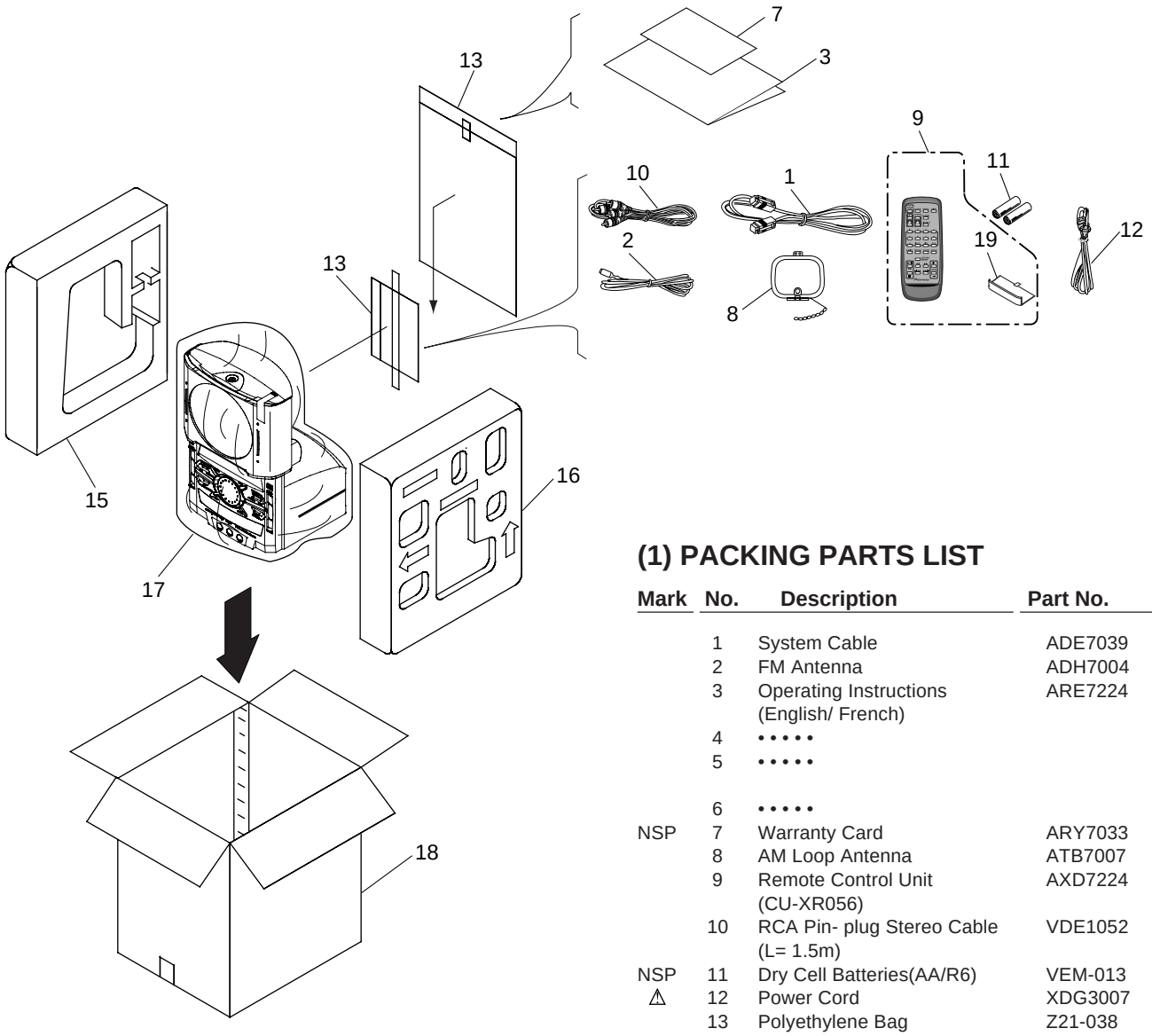
LASER DIODE CHARACTERISTICS

MAXIMUM OUTPUT POWER: 5 mw
WAVELENGTH: 780-785 nm

2. EXPLODED VIEWS AND PARTS LIST

NOTES: ● *Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
● *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
● *Screws adjacent to ▼ mark on the product are used for disassembly.*

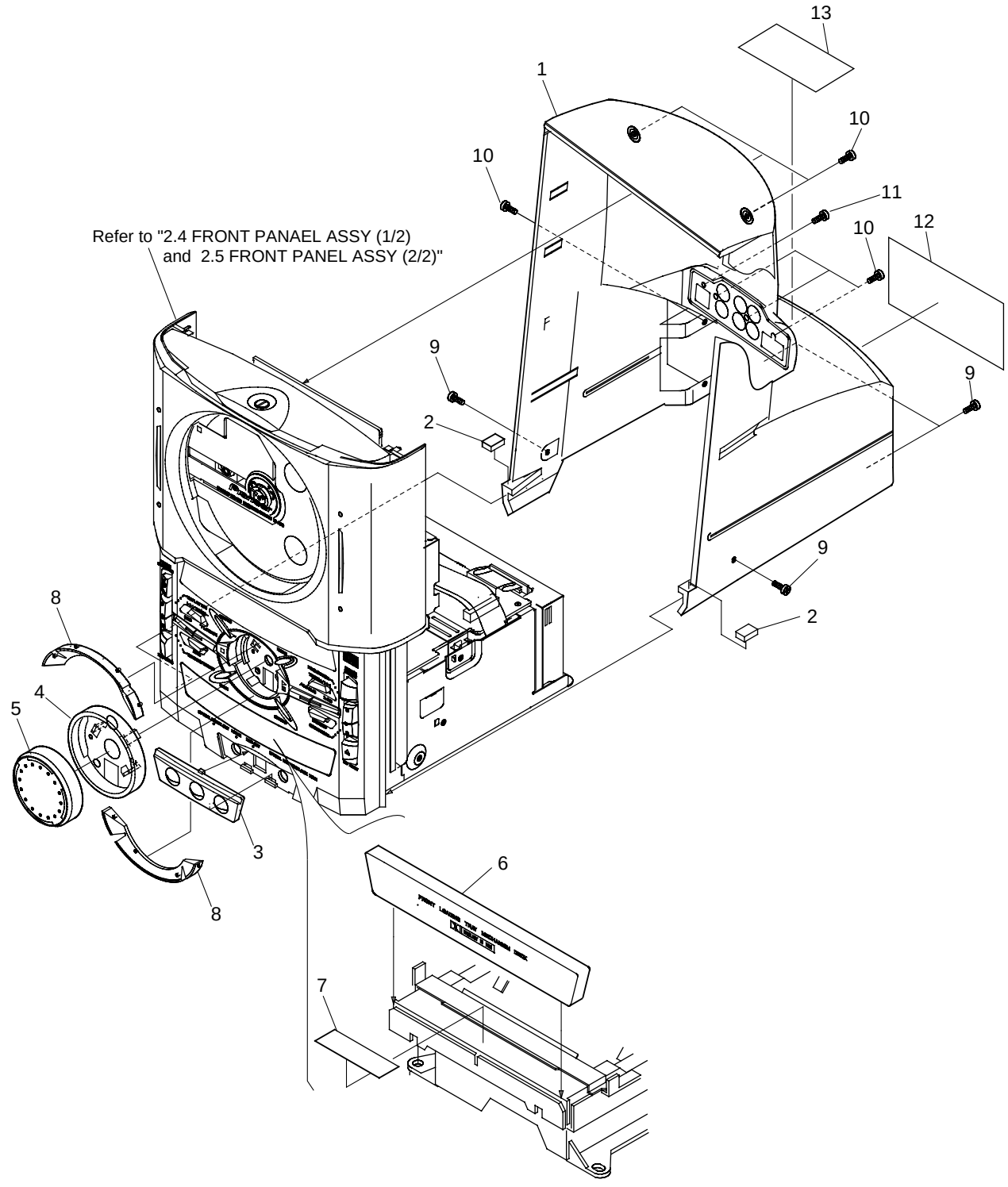
2.1 PACKING



(1) PACKING PARTS LIST

Mark	No.	Description	Part No.
	1	System Cable	ADE7039
	2	FM Antenna	ADH7004
	3	Operating Instructions (English/ French)	ARE7224
	4	• • • • •	
	5	• • • • •	
	6	• • • • •	
NSP	7	Warranty Card	ARY7033
	8	AM Loop Antenna	ATB7007
	9	Remote Control Unit (CU-XR056)	AXD7224
	10	RCA Pin- plug Stereo Cable (L= 1.5m)	VDE1052
NSP	11	Dry Cell Batteries(AA/R6)	VEM-013
⚠	12	Power Cord	XDG3007
	13	Polyethylene Bag (0.03 x 230 x 340)	Z21-038
	14	• • • • •	
	15	Side Pad ML	AHA7240
	16	Side Pad MR	AHA7241
	17	Packing Sheet	AHG7053
	18	Packing Case	AHD7751
	19	Battery Cover	AZA7331

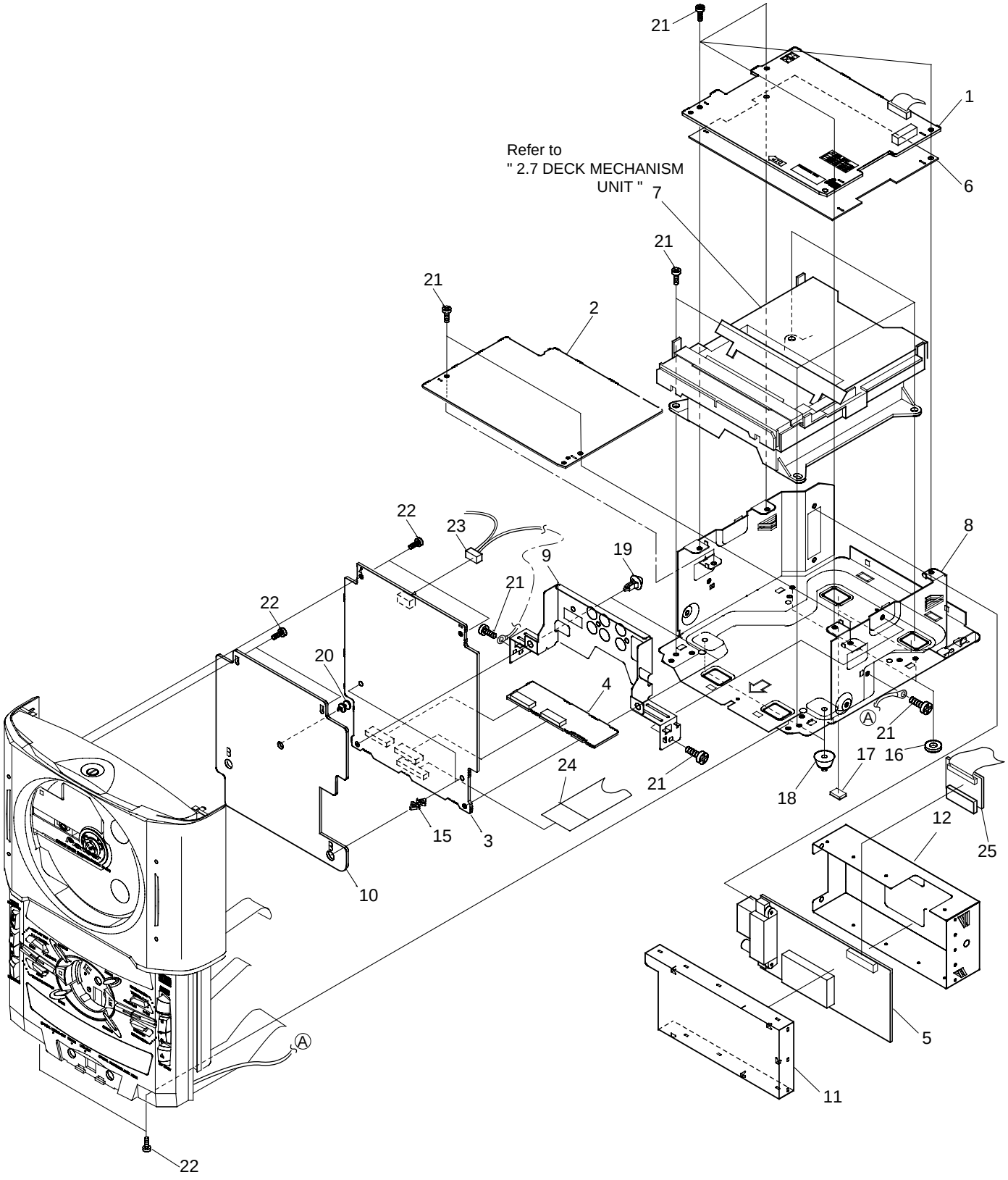
2.2 EXTERIOR (1/2)



(1) EXTERIOR (1/2) PARTS LIST

Mark	No.	Description	Parts No.
	1	Rear Cover	AMC7029
	2	Cussion Rubber	AEB7154
	3	Jack Door	AAN7188
	4	Jog Lens	AAK7651
	5	Jog Knob	AAA7005
	6	Tray Cap	AAK7622
NSP	7	Tray Seal	RRW1162
	8	Jog Escutcheon	AAK7620
	9	Screw	BBZ30P080FMC
	10	Screw	VPZ30P100FMC
	11	Screw	BMZ30P060FZK
NSP	12	Name Label	AAL7231
	13	Label M	ARW7065

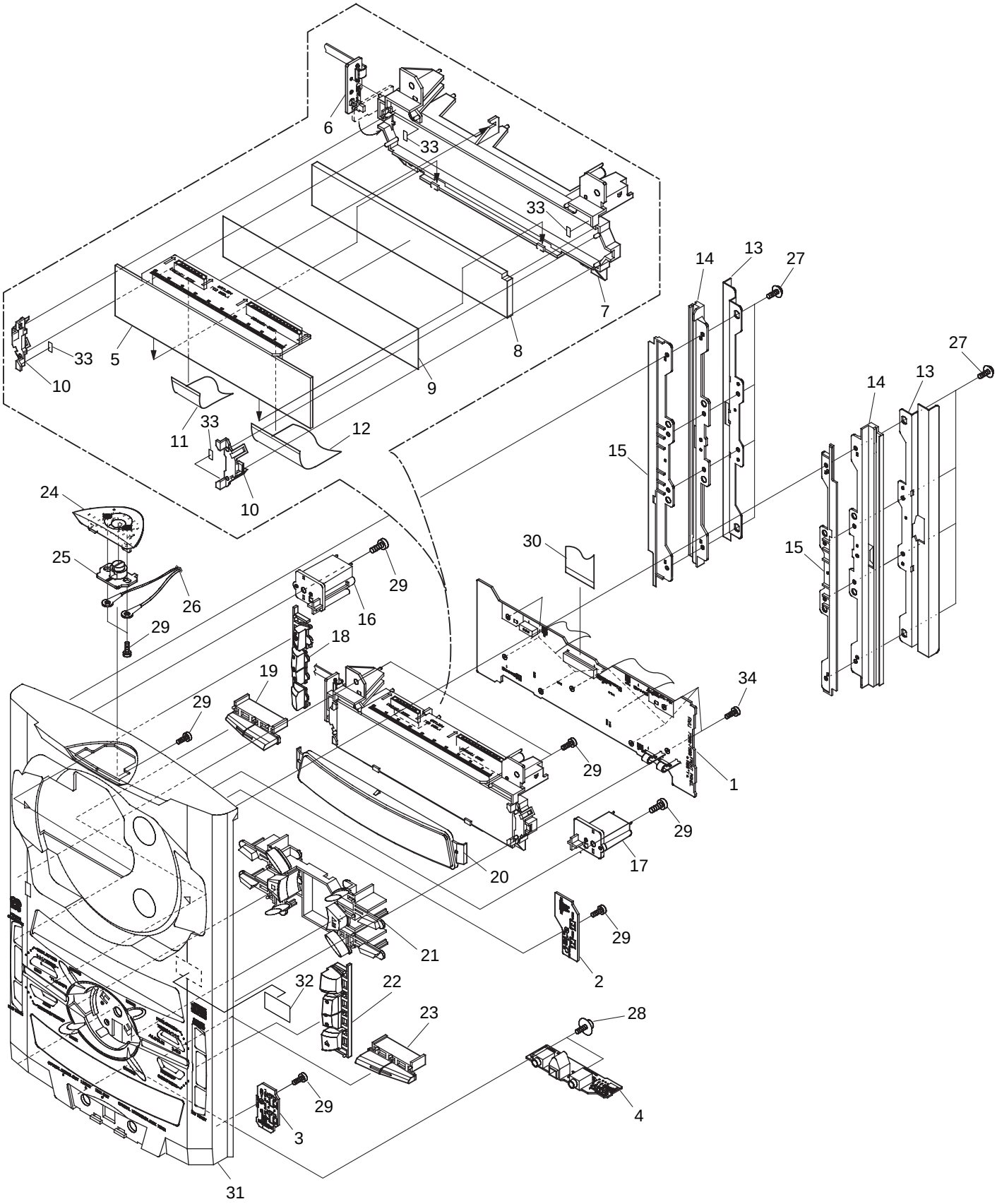
2.3 EXTERIOR (2/2)



● EXTERIOR (2/2) PARTS LIST

Mark	No.	Description	Parts No.
	1	U- COM ASSY	AWU7327
	2	DECK ASSY	AWU7334
	3	AF ASSY	AWU7298
	4	R- TERMINAL ASSY	AWU7315
	5	FM/AM TUNER MODULE	AXQ7065
	6	Deck Shield	AEC7209
	7	DECK MECHANISM UNIT	AXA7075
NSP	8	Chassis M	ANA7087
	9	Rear Panel	ANC7735
NSP	10	Shield Plate	ANK7059
	11	Shield Case T	ANK7050
	12	Shield Case B	ANK7051
	13	• • • • •	
	14	• • • • •	
	15	PC Support	DEC1932
NSP	16	Spacer	AEB7092
	17	Rubber Sheet	AEB1111
	18	Leg Assy IS	AEC7202
	19	Locking Card Spacer	VEC1596
NSP	20	PCB Spacer (3 x 6)	AEC7156
	21	Screw	BBZ30P080FMC
	22	Screw	VPZ30P080FZK
	23	Connector Assy 3p	ADX7252
	24	23P F.F.C /30V	ADD7150
NSP	25	TX CONNECT ASSY	AWU7323

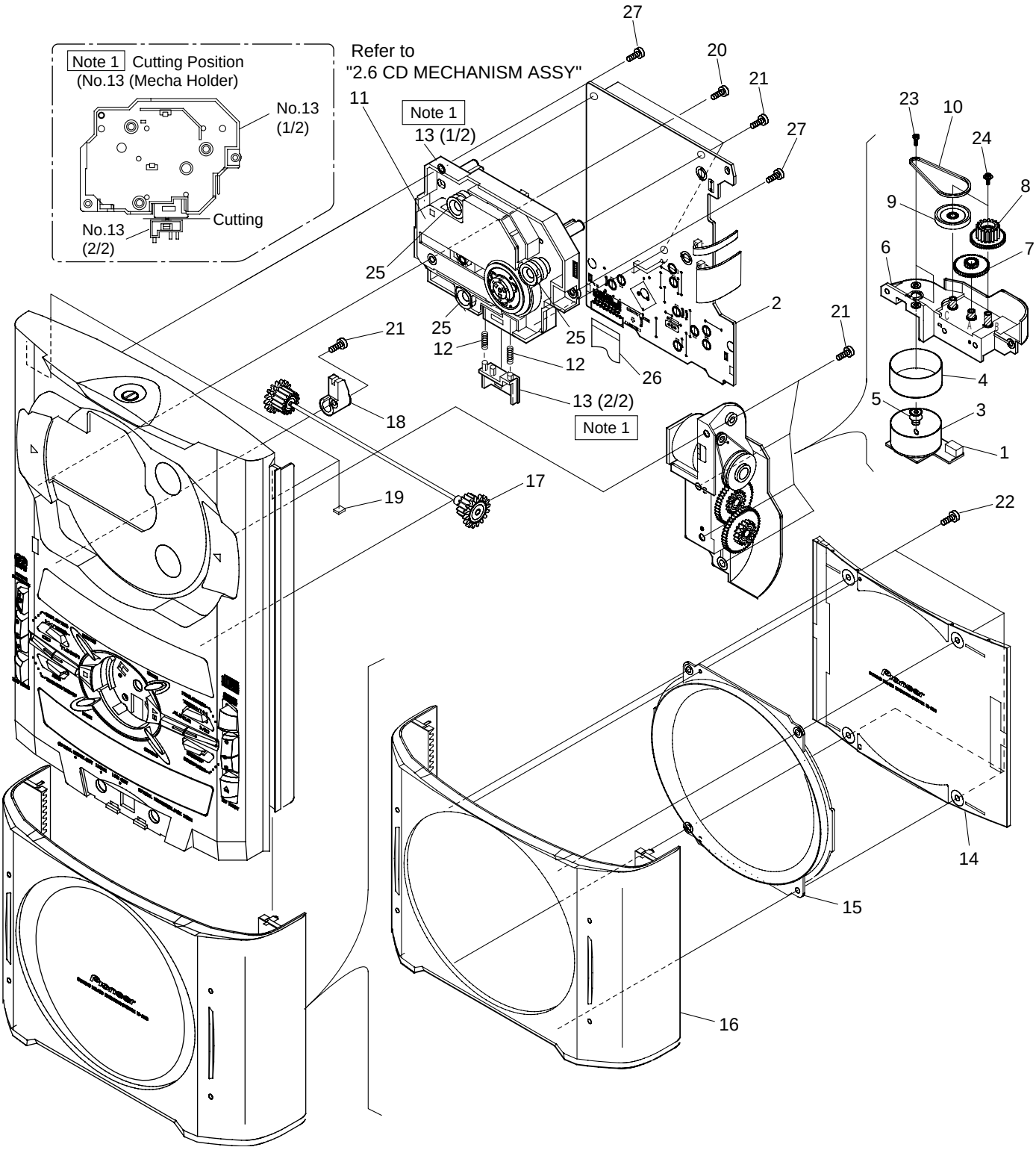
2.4 FRONT PANEL ASSY (1/2)



● FRONT PANEL ASSY (1/2) PARTS LIST

Mark	No.	Description	Parts No.
	1	FRONT PANEL ASSY	AWU7308
NSP	2	CD CLOSE SW ASSY	AWU7320
NSP	3	CD OPEN SW ASSY	AWU7319
	4	F- TERMINAL ASSY	AWU7311
NSP	5	LCD ASSY (TC)	AWU7354
NSP	6	LIGHT- L ASSY	AWU7321
	7	Lens Holder M	AMR7247
	8	Lens M	AAK7615
	9	Diffusion Sheet	AAK7666
	10	Reflector	AMR7248
	11	15P F.F.C/ 30V	ADD7147
	12	29P F.F.C/ 30V	ADD7148
	13	Frame	ANG7235
	14	Rail	AMR7239
	15	Blind	AMR7261
	16	PCB Holder L	AMR7262
	17	PCB Holder R	AMR7263
	18	Plating Button Assy	AXG7089
	19	Fuction Button B	AAD7511
	20	Window	AAK7621
	21	Complex Button	AAD7509
	22	Plating Button A	AAD7567
	23	Function Button A	AAD7510
	24	O/C Button	AAD7506
	25	Key O/C	AAD7526
	26	Connector 3p	ADX7252
	27	Screw	IPZ30P100FMC
	28	Screw	ABA1005
	29	Screw	VPZ30P080FZK
	30	17P F.F.C/ 30V	ADD7145
	31	Front Panel M	AMB7565
	32	PU Caution Label	ARW7059
	33	Spacer	AEC7216
	34	Screw	VPZ30P100FMC

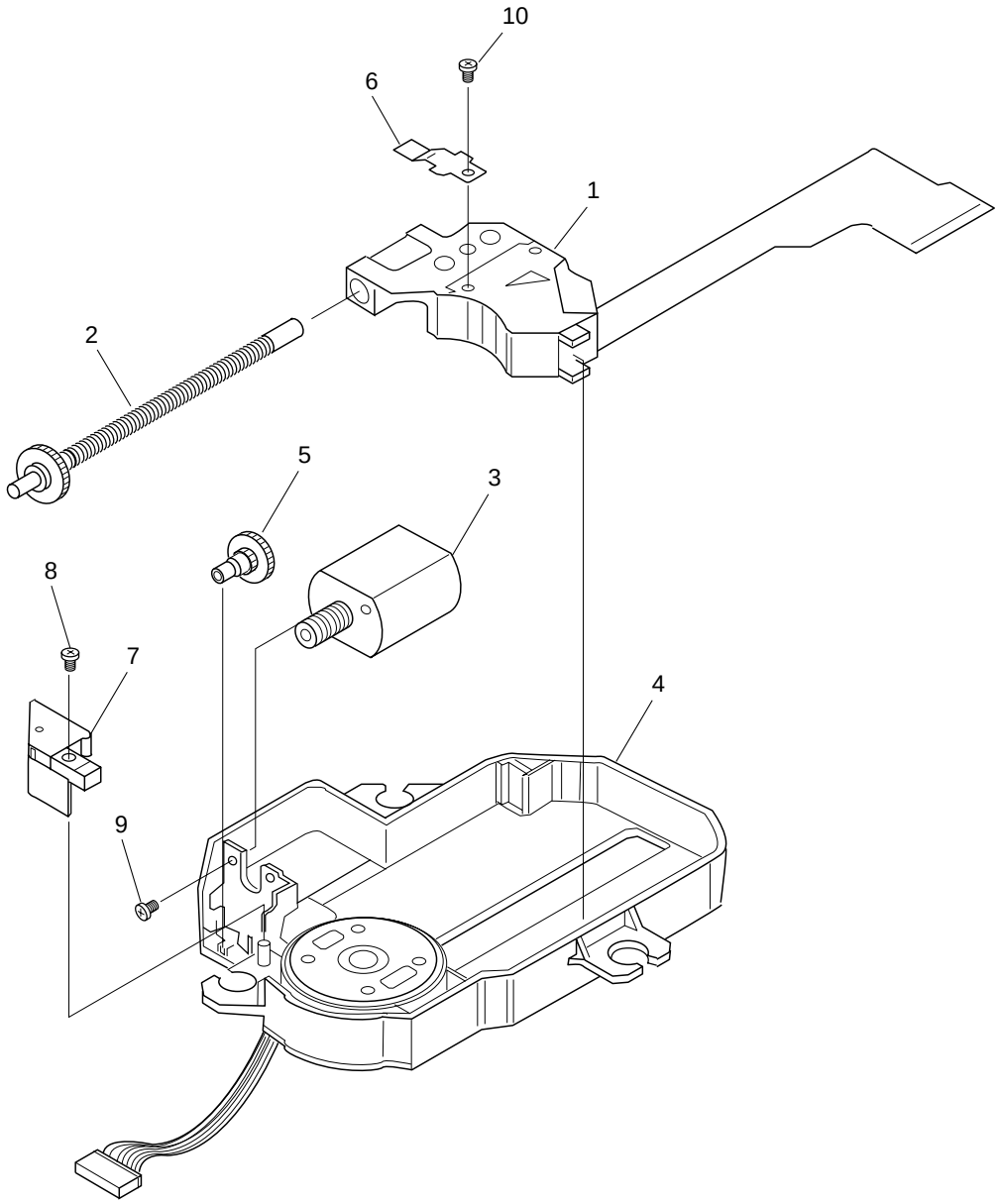
2.5 FRONT PANEL ASSY (2/2)



● FRONT PANEL ASSY (2/2) PARTS LIST

Mark	No.	Description	Parts No.
	1	CD MOTOR ASSY	AWU7318
	2	CD ASSY	AWU7305
	3	Slider Motor	VXM1033
NSP	4	Motor Shield	ANK7067
	5	Motor Pulley	PNW1634
	6	Gear Holder	AMR7240
	7	Gear A	ANW7063
	8	Gear B	AMR7260
	9	Gear Pulley A	ANW7066
	10	Belt	AEB7171
	11	CD MECHANISM ASSY	KSM-620AAA
	12	Float Spring	ABH7170
	13	Mechanism Holder	AMR7242
	14	CD Door Window	AAK7618
	15	CD Door Escutcheon	AAK7619
	16	CD Door	AAN7189
	17	Shaft Assy	AXG7078
	18	Shaft Holder	AMR7237
	19	Cussion Rubber	AEB7154
	20	Screw	BBZ30P080FMC
	21	Screw	VPZ30P080FZK
	22	Screw	ABA7054
	23	Screw	PMZ26P040FMC
	24	Screw	IPZ20P080FMC
	25	Float Rubber	AEB7129
	26	17P F.F.C/ 30V	ADD7146
	27	Screw	VPZ30P100FMC

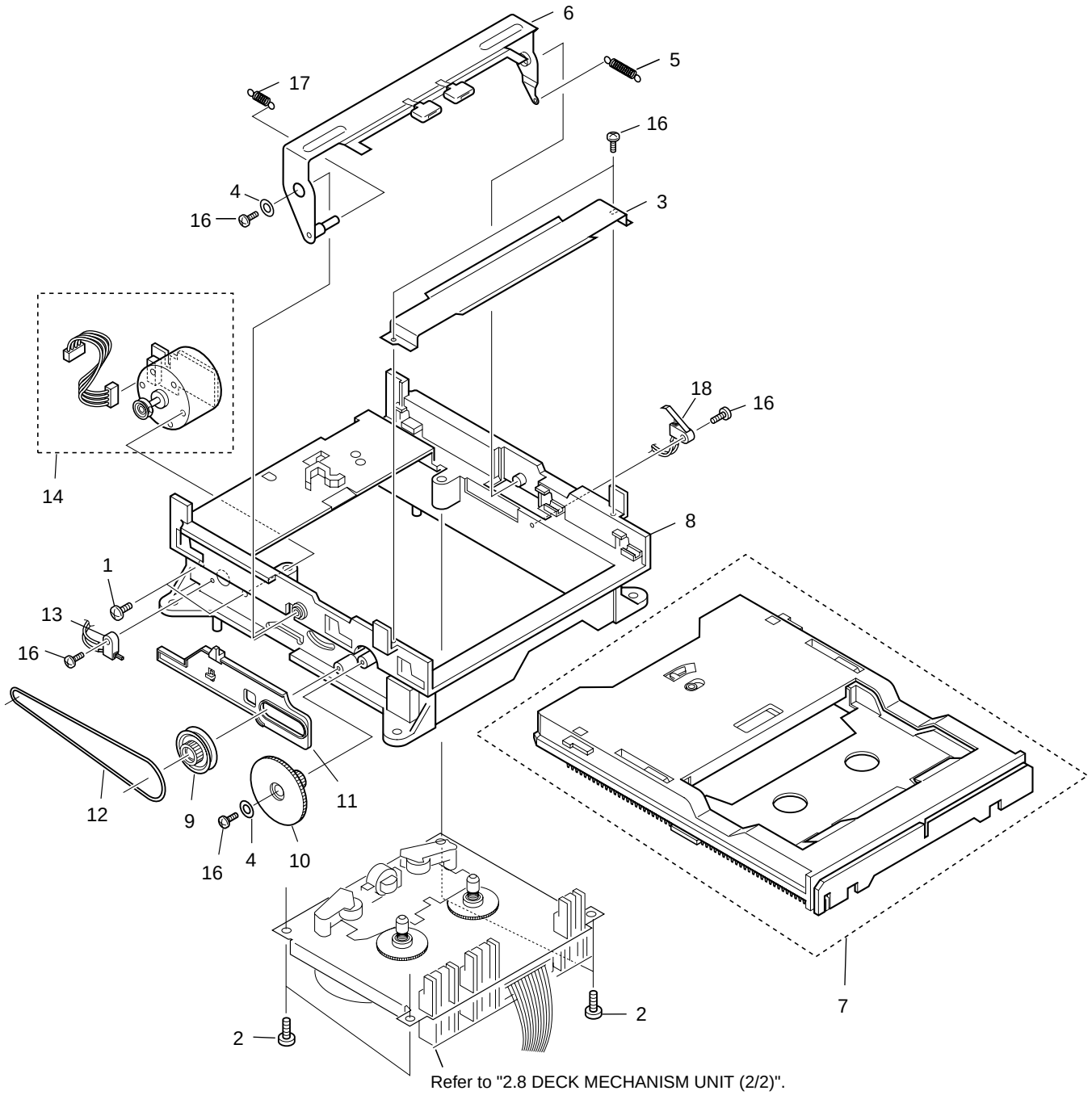
2.6 CD MECHANISM ASSY



● CD MECHANISM ASSY PARTS LIST

Mark	No.	Description	Parts No.
	1	KSS-620A(RP)	8-820-063-(03)
	2	Sled Screw Assy	X-2646-389-(1)
	3	Sled Motor Assy	A-4912-199-(A)
	4	MD Assy	X-2646-482-(1)
	5	Geer BN	2-627-751-(02)
	6	Rack Spring	2-646-912-(01)
	7	Holder	2-646-913-(01)
	8	Tapping Screw	2-646-352-01
	9	Precision Screw	2-627-668-01
	10	Tapping Screw	2-646-358-11

2.7 DECK MECHANISM UNIT (1/2)

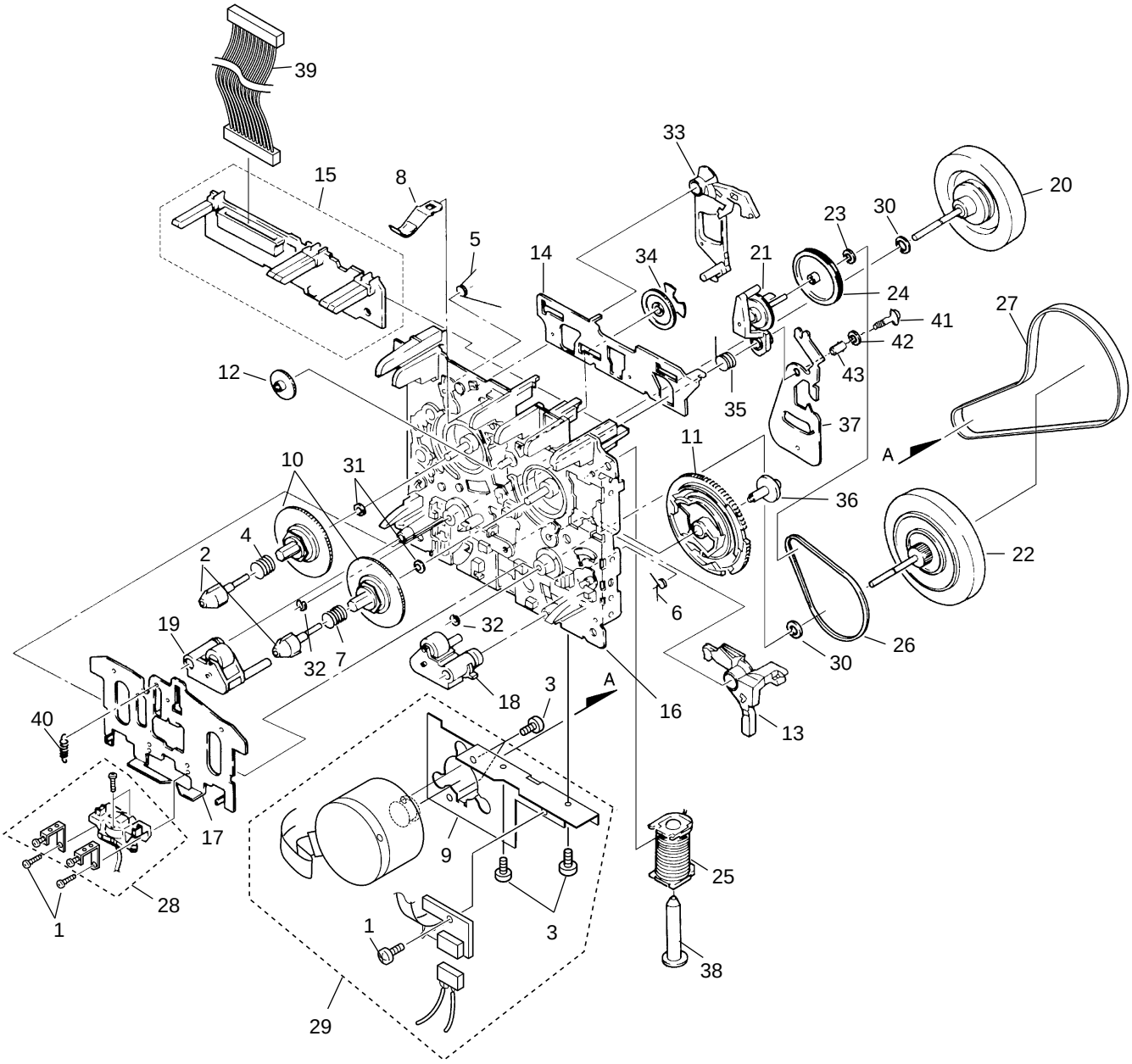


Refer to "2.8 DECK MECHANISM UNIT (2/2)".

● DECK MECHANISM UNIT (1/2) PARTS LIST

Mark	No.	Description	Parts No.
	1	Screw	FG114-14
	2	Screw	UG12H-15
	3	Front BKT	FC64K-11
	4	Washer	MJ112-22
	5	SP Return	FK34N-11
	6	Plate Hold BLK	F573-258
	7	Holder CST BLK	F527-078
	8	LDG Base	FD56R-12
	9	Pulley	FD56T-11
	10	LDG Gear	FD56U-11
	11	Slider	FD57E-11
	12	LDG Belt	FF19L-12
	13	Switch	UE15S-14
	14	MTR Reel BLK	F564-313
	15	• • • • •	
	16	Screw	UG12H-28
	17	SP Clamper	FK34M-11
	18	Switch	UE18P-21

2.8 DECK MECHANISM UNIT (2/2)

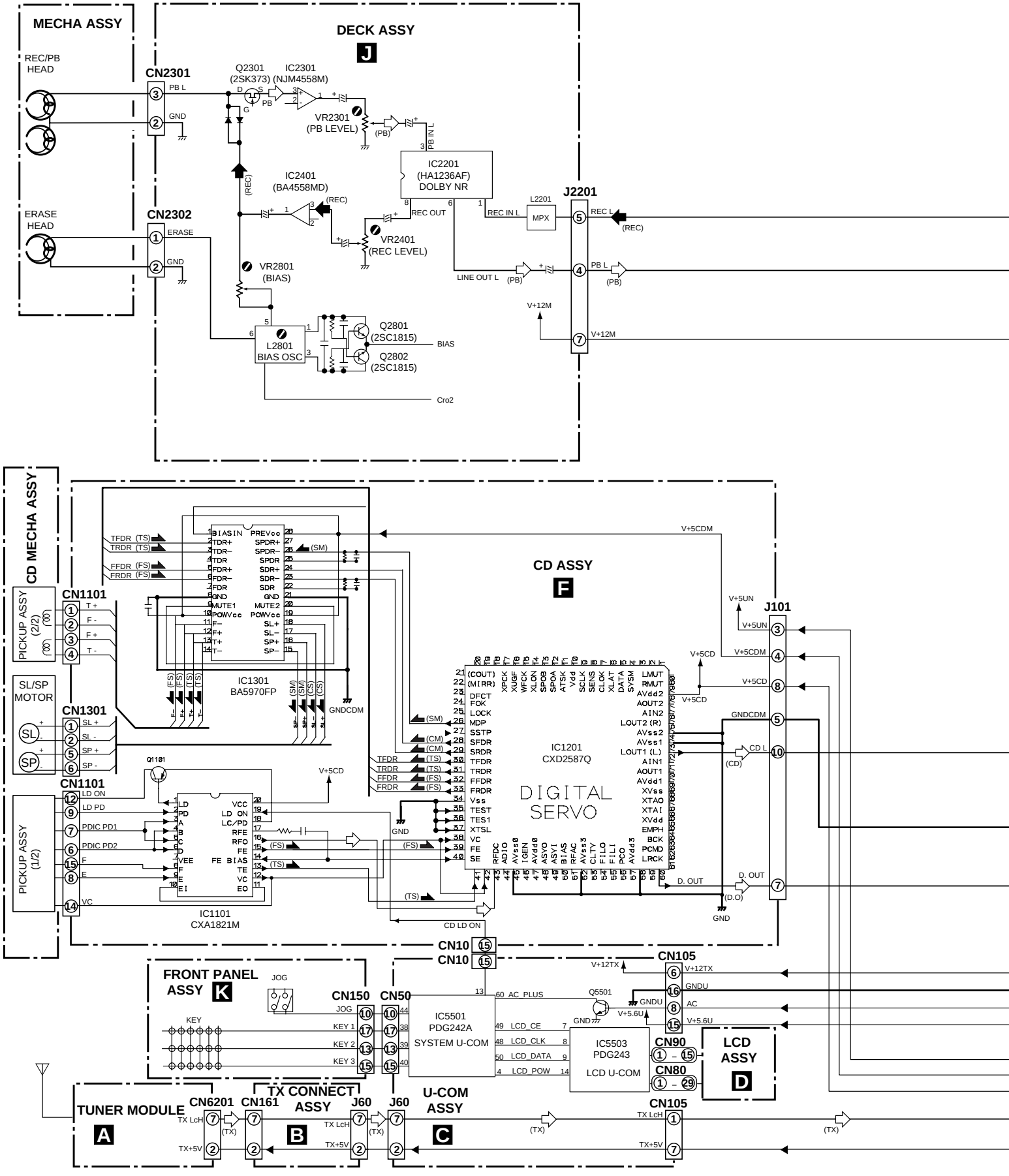


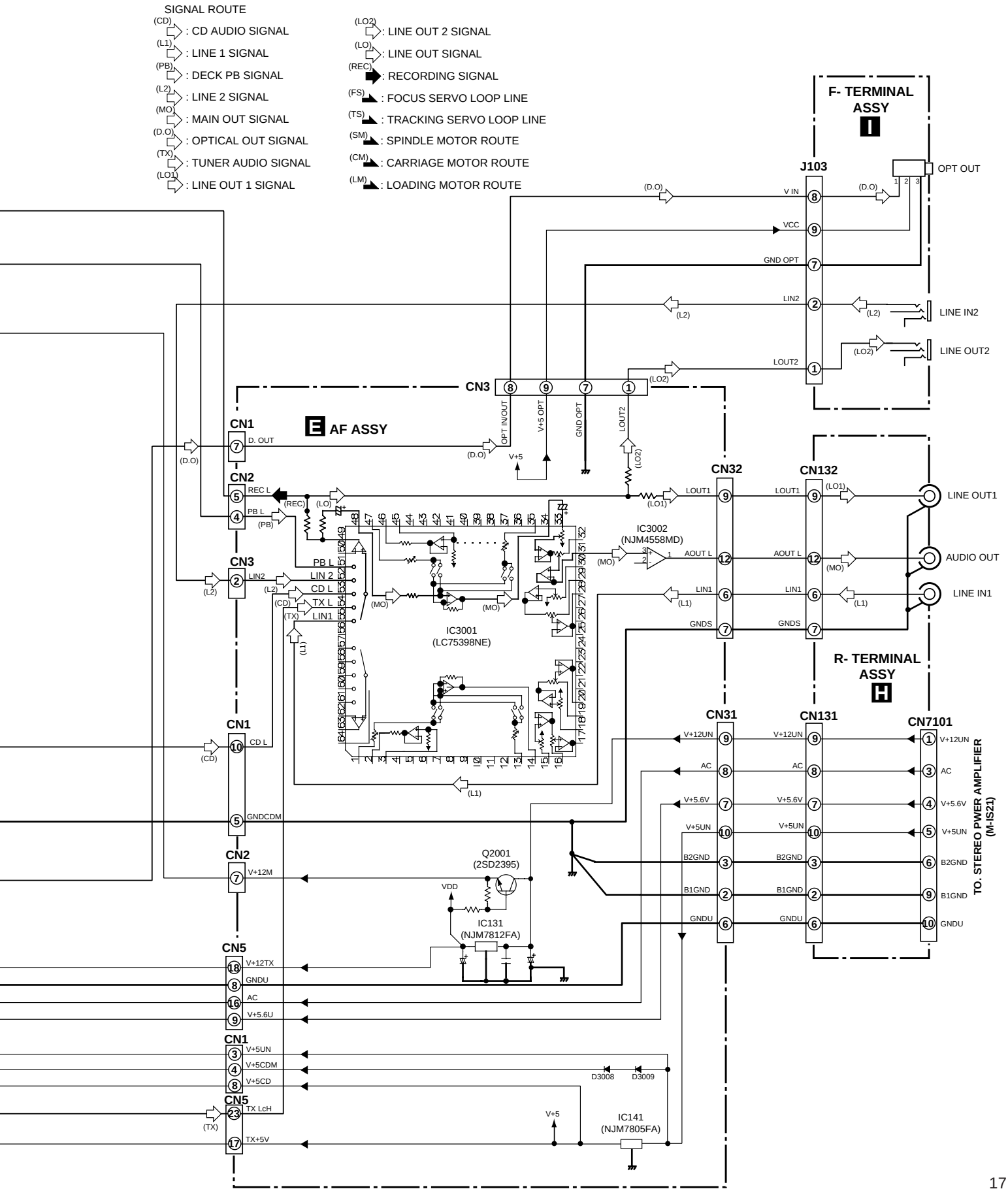
● DECK MECHANISM UNIT (2/2) PARTS LIST

Mark	No.	Description	Parts No.
	1	Screw	KG194-36
	2	Reel Feather	FD57D-13
	3	Screw	UG11S-14
	4	SP Reel(L)	FK32U-12
	5	SP Brake	FK33B-13
	6	SP Arm Play	FK33P-11
	7	SP Reel(R)	FK32V-12
	8	Spring Cassette	FC65M-11
	9	BKT MTR	FC64M-12
	10	Reel Base	FD52W-12
	11	Cam Gear	FD52Y-23
	12	Play Gear (A)	FD53K-12
	13	Arm Play	FD53D-19
	14	Plate Slide	FC61L-19
	15	PCB Control BLK	F567-617
	16	Chassis base BLK	F612-231
	17	Head Base	FC61K-32
	18	Roller Pinch BLK R	F514-129
	19	Roller Pinch BLK L	F514-130
	20	Assy F/W	FR24S-21
	21	Clutch Assy BLK	F522-037
	22	Clutch Assy BLK	F522-048
	23	Washer	FJ111-13
	24	F/R Pulley	FD53F-15
	25	Solenoid BLK	F765-279
	26	F/R Belt	FF18W-12
	27	Belt Main	FF19H-11
	28	Plate HD BLK	F513-824
	29	MTR MAIN BLK	F525-321
	30	Washer	FJ111-30
	31	Washer	FJ111-35
	32	Washer	UJ16F-11
	33	Lever Brake	FD53P-17
	34	FF Gear(A)	FD53L-12
	35	Cam SP	FK32S-14
	36	Screw	UJ14A-12
	37	Lever F/R	FC62G-14
	38	Plunger	FL41S-21
	39	Mecha-Cable	WH65N-11
	40	Spring HB	FK32T- 31
	41	Screw	UG15V-13
	42	Washer	MJ112- 22
	43	Spacer	UJ15V- 13

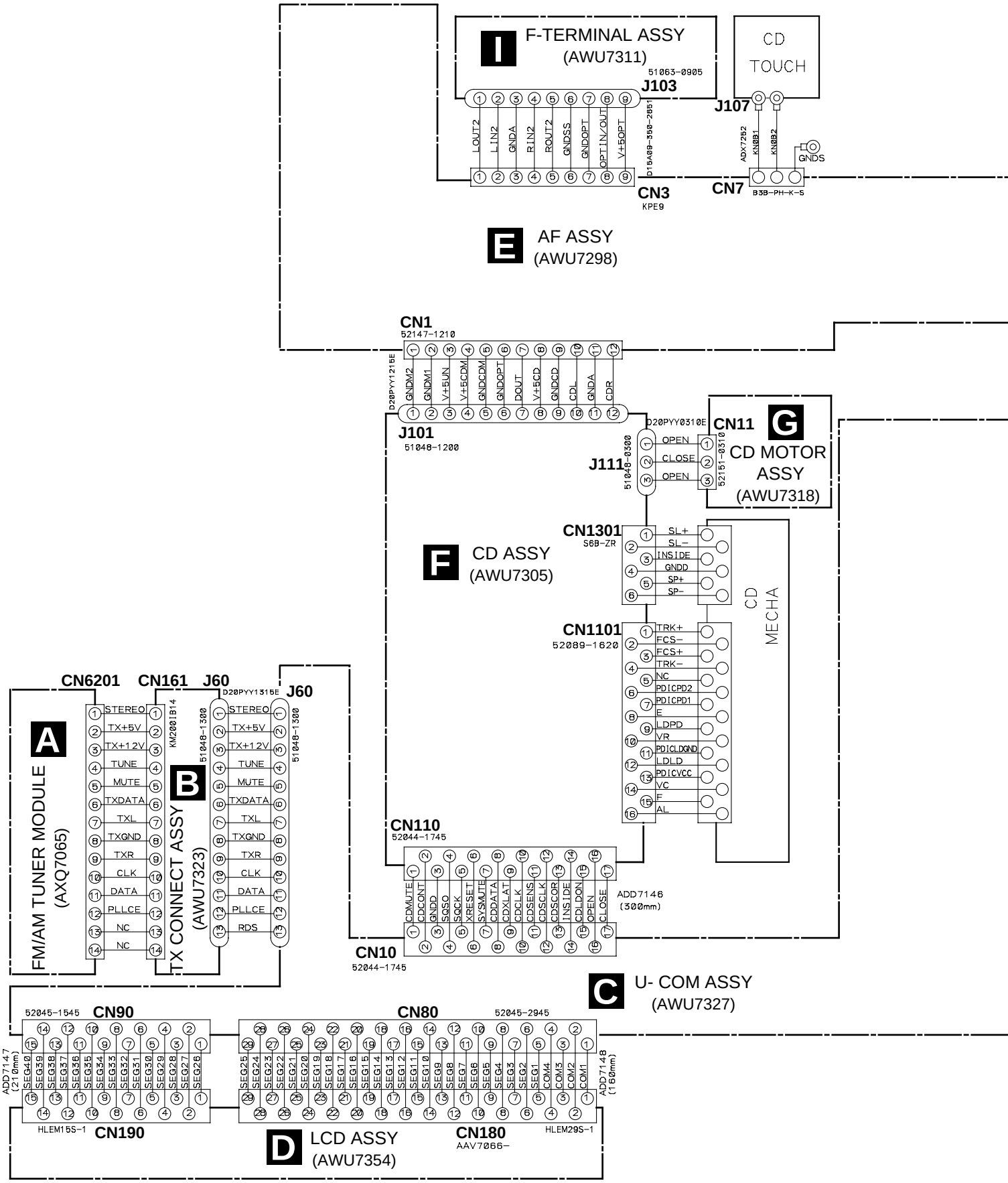
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 BLOCK DIAGRAM

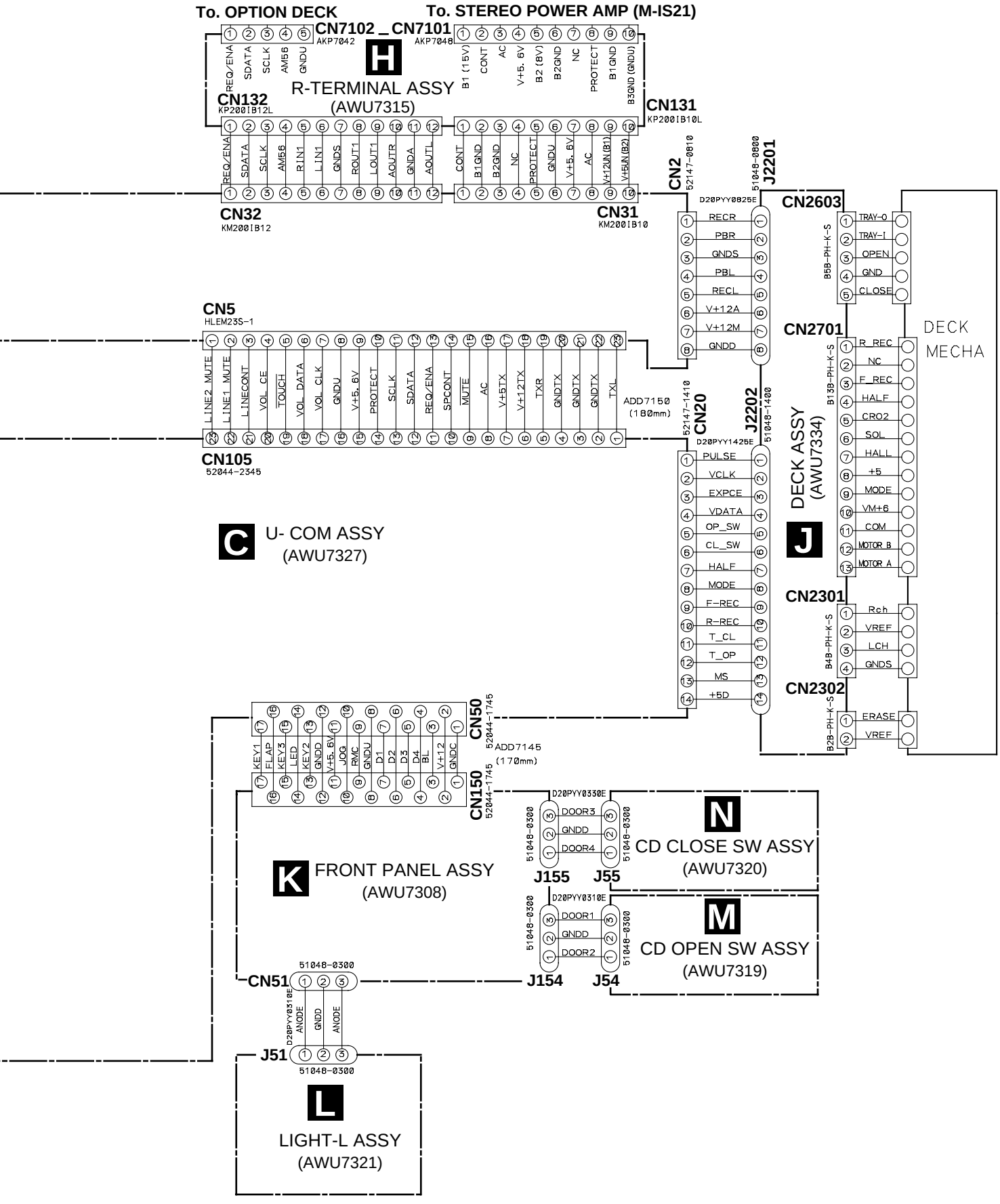



SIGNAL ROUTE
(CD) : CD AUDIO SIGNAL
(L1) : LINE 1 SIGNAL
(PB) : DECK PB SIGNAL
(L2) : LINE 2 SIGNAL
(MO) : MAIN OUT SIGNAL
(D.O) : OPTICAL OUT SIGNAL
(TX) : TUNER AUDIO SIGNAL
(LO1) : LINE OUT 1 SIGNAL
(LO2) : LINE OUT 2 SIGNAL
(LO) : LINE OUT SIGNAL
(REC) : RECORDING SIGNAL
(FS) : FOCUS SERVO LOOP LINE
(TS) : TRACKING SERVO LOOP LINE
(SM) : SPINDLE MOTOR ROUTE
(CM) : CARRIAGE MOTOR ROUTE
(LM) : LOADING MOTOR ROUTE
F- TERMINAL ASSY
J103
OPT OUT
V IN
VCC
GND OPT
LIN2
LOUT2
LINE IN2
LINE OUT2
CN3
OPT IN/OUT
V+5 OPT
GND OPT
LOUT2
E AF ASSY
CN1
D. OUT
CN2
REC L
PB L
CN3
LIN2
PB L
LIN 2
CD L
TX L
LIN1
IC3001
(LC75398NE)
IC3002
(NJM4558MD)
AOUT L
LIN1
GNDS
CN32
CN132
LINE OUT1
AUDIO OUT
LINE IN1
R- TERMINAL ASSY
CN1
CD L
GNDCDM
CN2
V+12M
Q2001
(2SD2395)
VDD
IC131
(NJM7812FA)
CN31
CN131
CN7101
V+12UN
AC
V+5.6V
V+5UN
B2GND
B1GND
GNDU
TO. STEREO PWER AMPLIFIER (M-IS21)
CN5
V+12TX
GNDU
AC
V+5.6U
CN1
V+5UN
V+5CDM
V+5CD
D3008
D3009
CN5
TX LcH
TX+5V
IC141
(NJM7805FA)

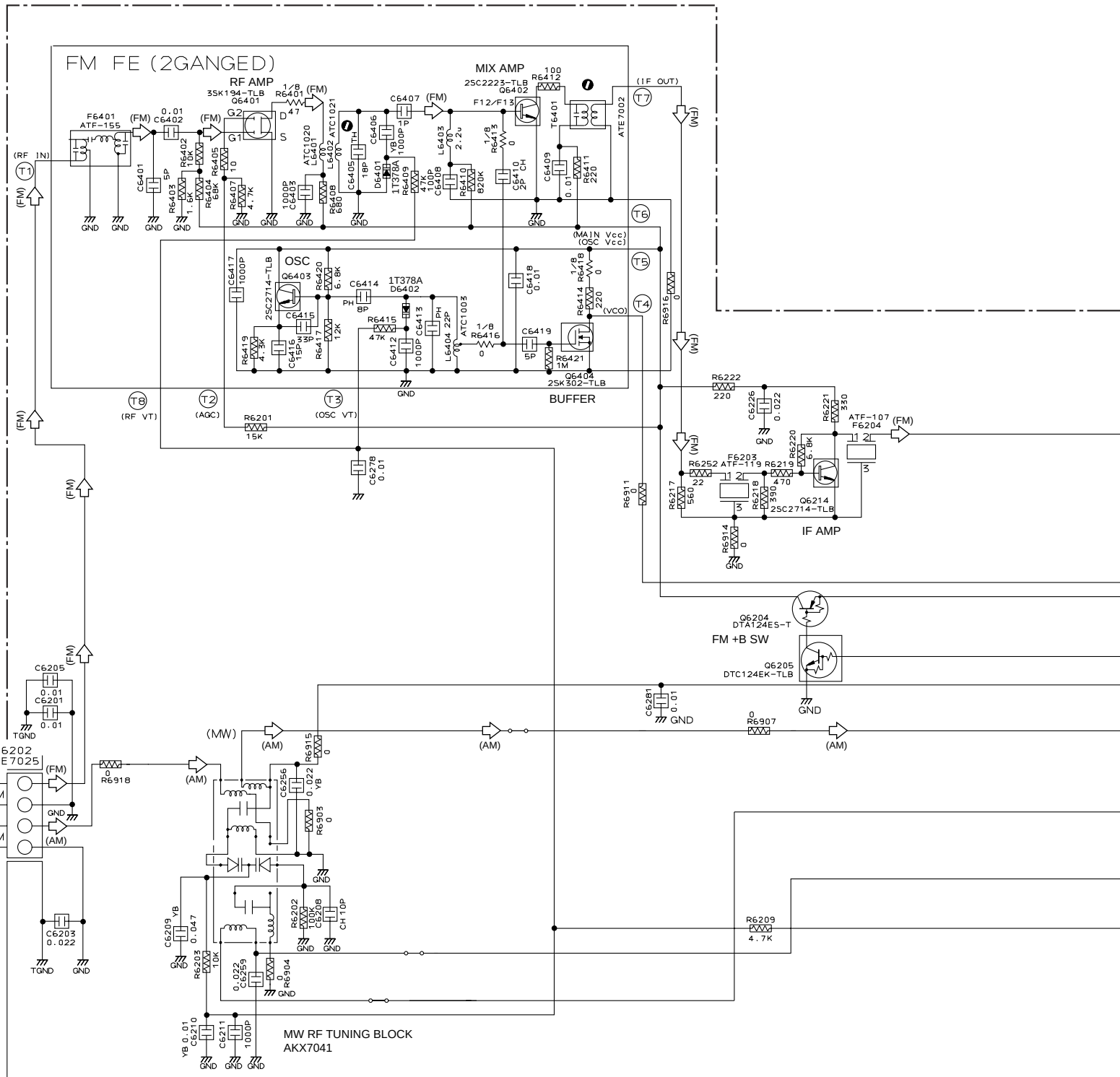
3.2 OVERALL CONNECTION DIAGRAM



Note : When ordering service parts, be sure to refer to "EXPLODED VIEWS and PARTS LIST" or "PCB PARTS LIST".



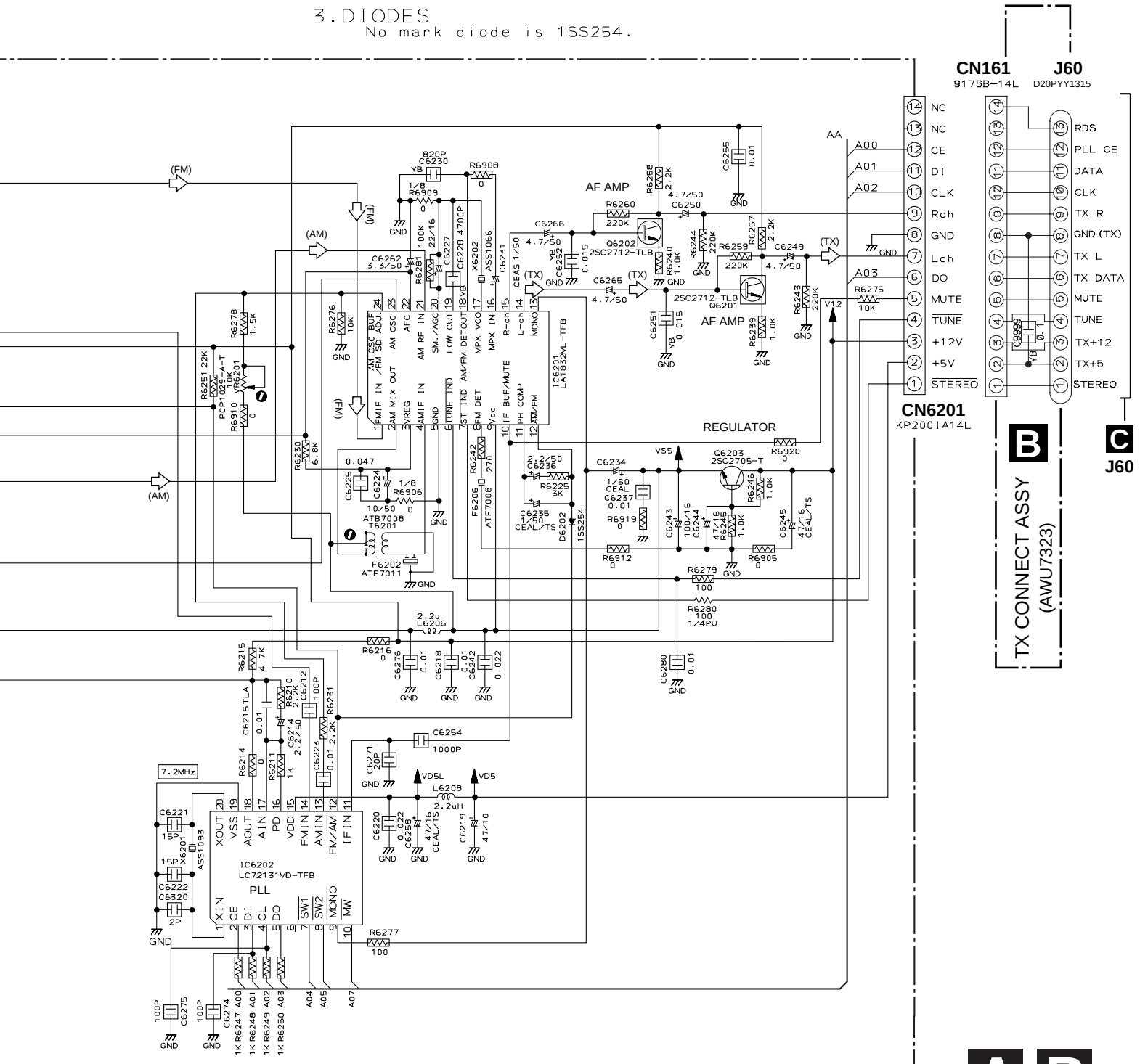
3.3 FM/AM TUNER MODULE and TX CONNECT ASSYS



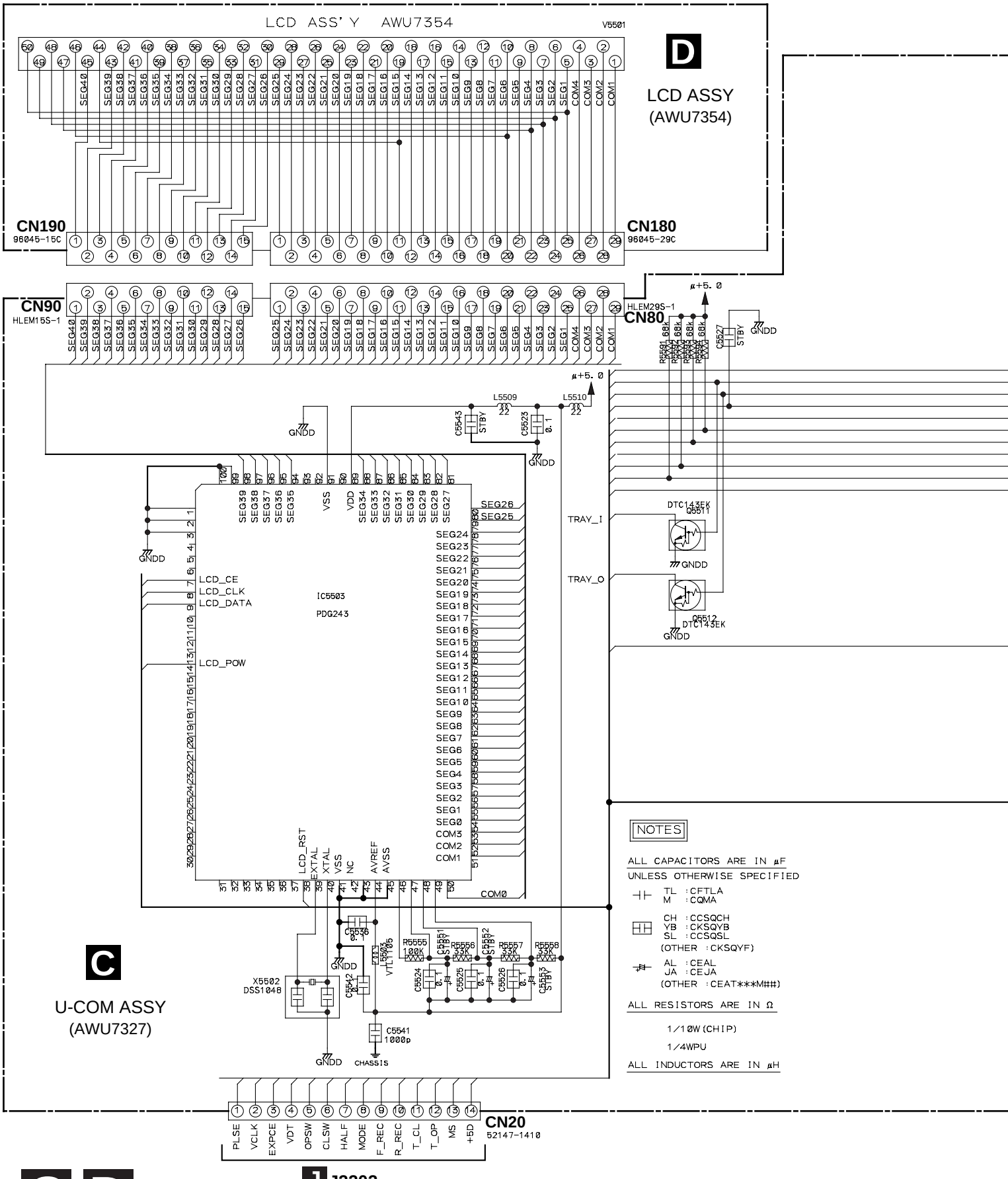
A FM/AM TUNER MODULE (AXQ7065)

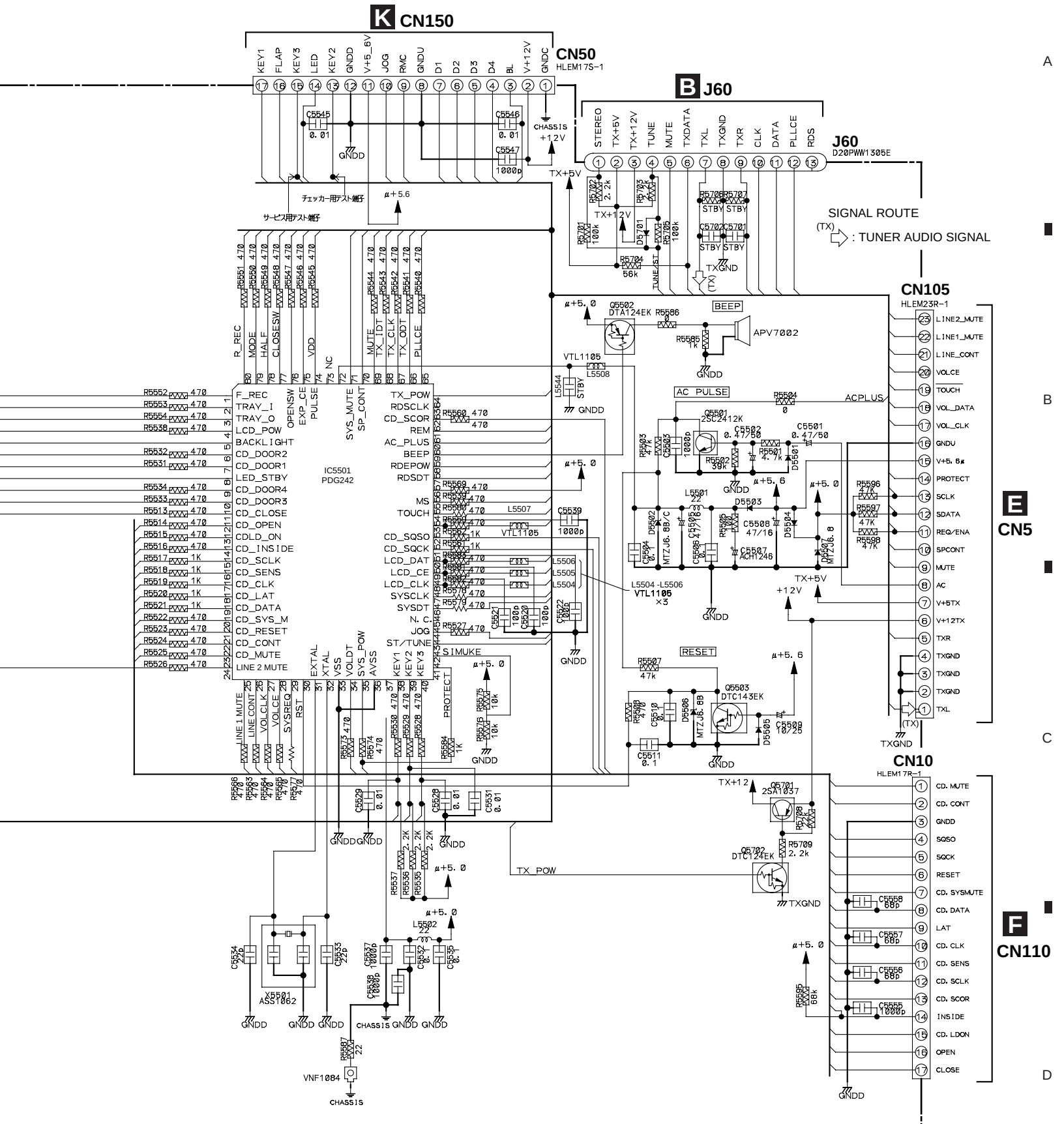
Notes

1. RESISTORS
   Indicated in Ω, 1/10W±5% Tolerance unless otherwise noted K:KΩ, M:MΩ.
2. CAPACITORS
   Indicated in Capacity(μF)/VOLTAGE(V) unless otherwise noted P:PF.
3. DIODES
   No mark diode is 1SS254.



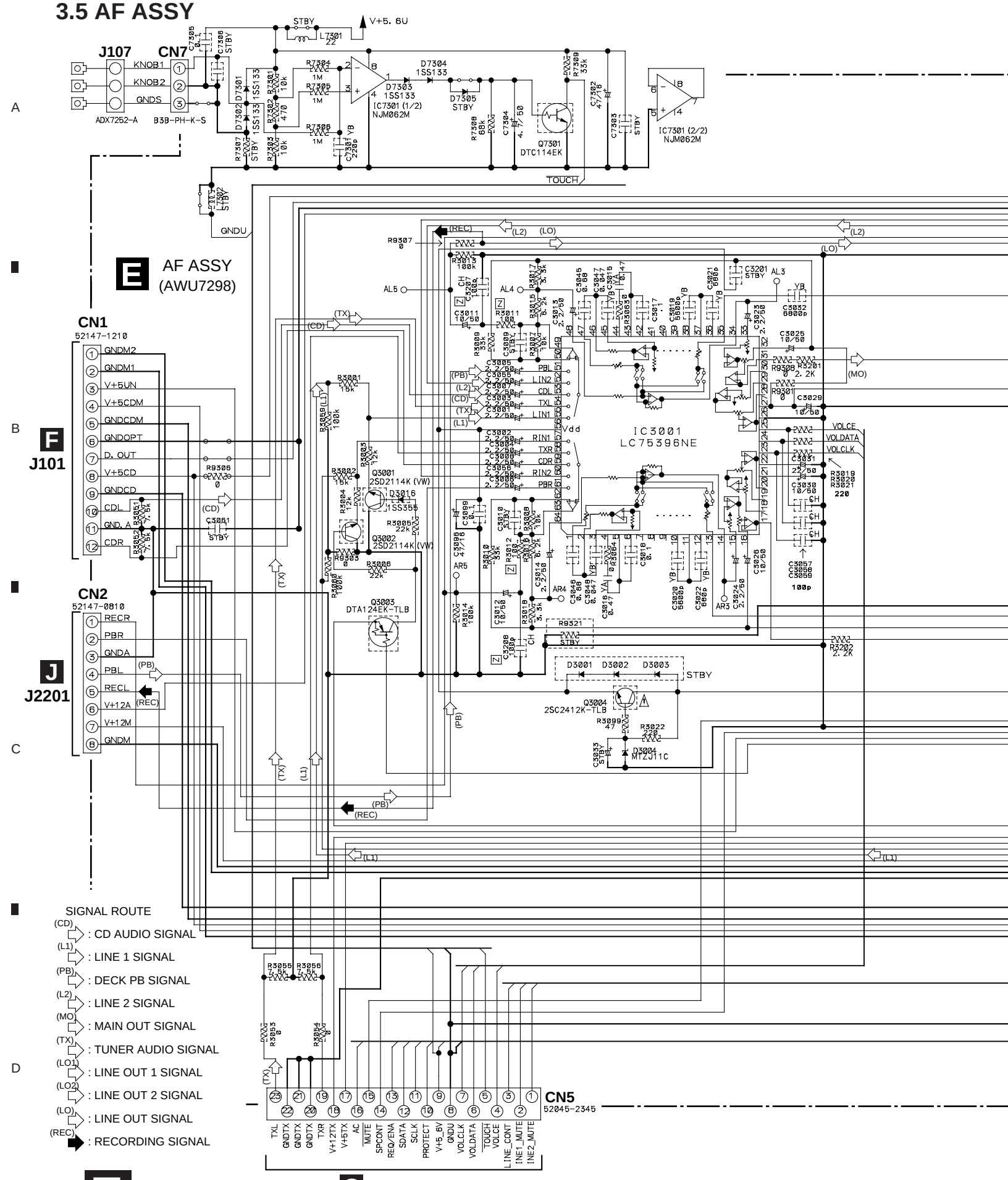
3.4 U-COM and LCD ASSYS




K CN150
CN50
HLEM17S-1
B J60
J60
D20PWW1305E
SIGNAL ROUTE
(TX) : TUNER AUDIO SIGNAL
CN105
HLEM23R-1
E CN5
CN10
HLEM17R-1
F CN110
IC5501
PDG242
SIMUKE
BEEP
APV7002
AC_PULSE
RESET
TX+5V
TX+12V
TXGND
GNDD
CHASSIS
VNF1084
X5501
ASS1062

XC-IS21T

3.5 AF ASSY



SIGNAL ROUTE

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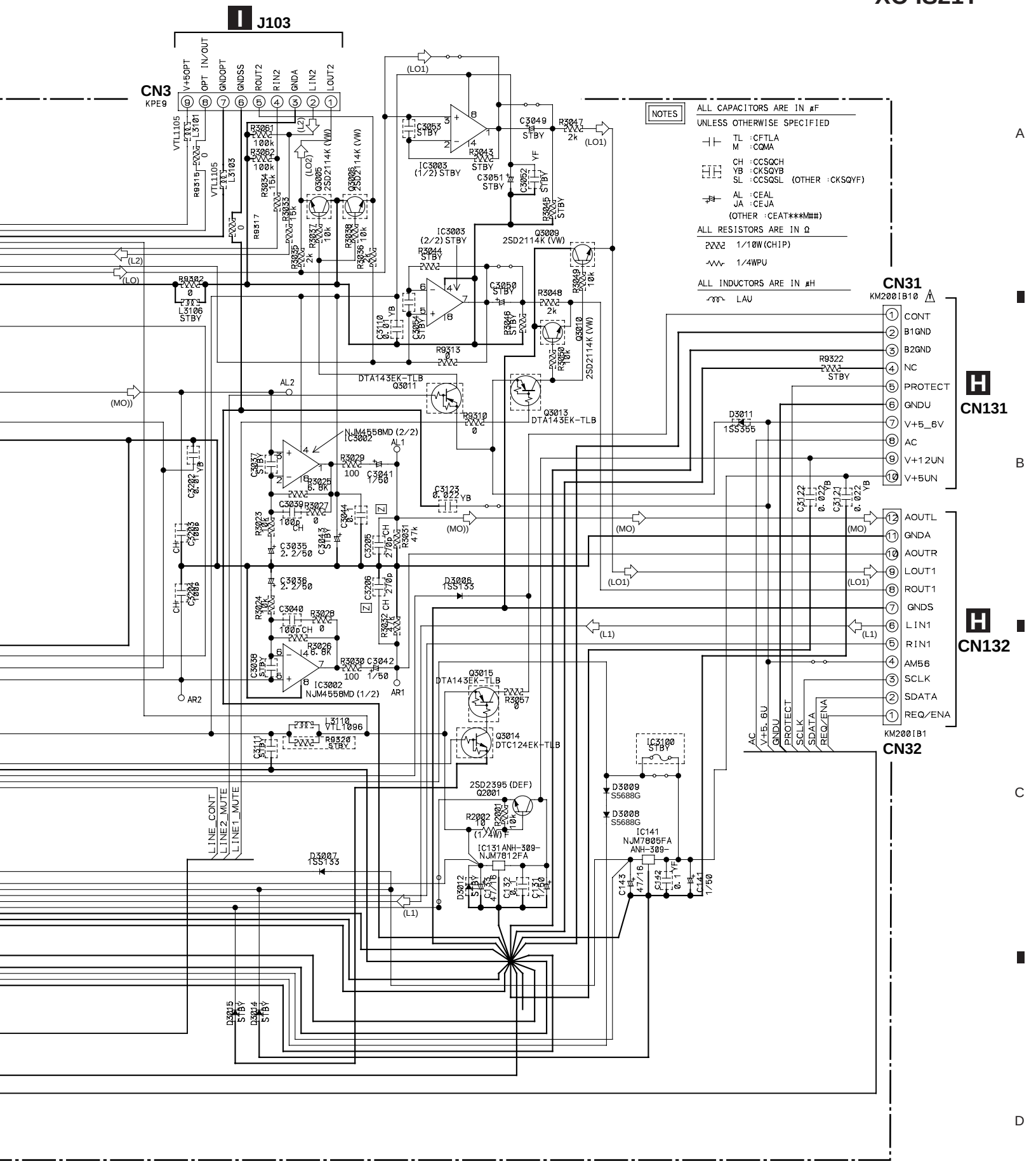
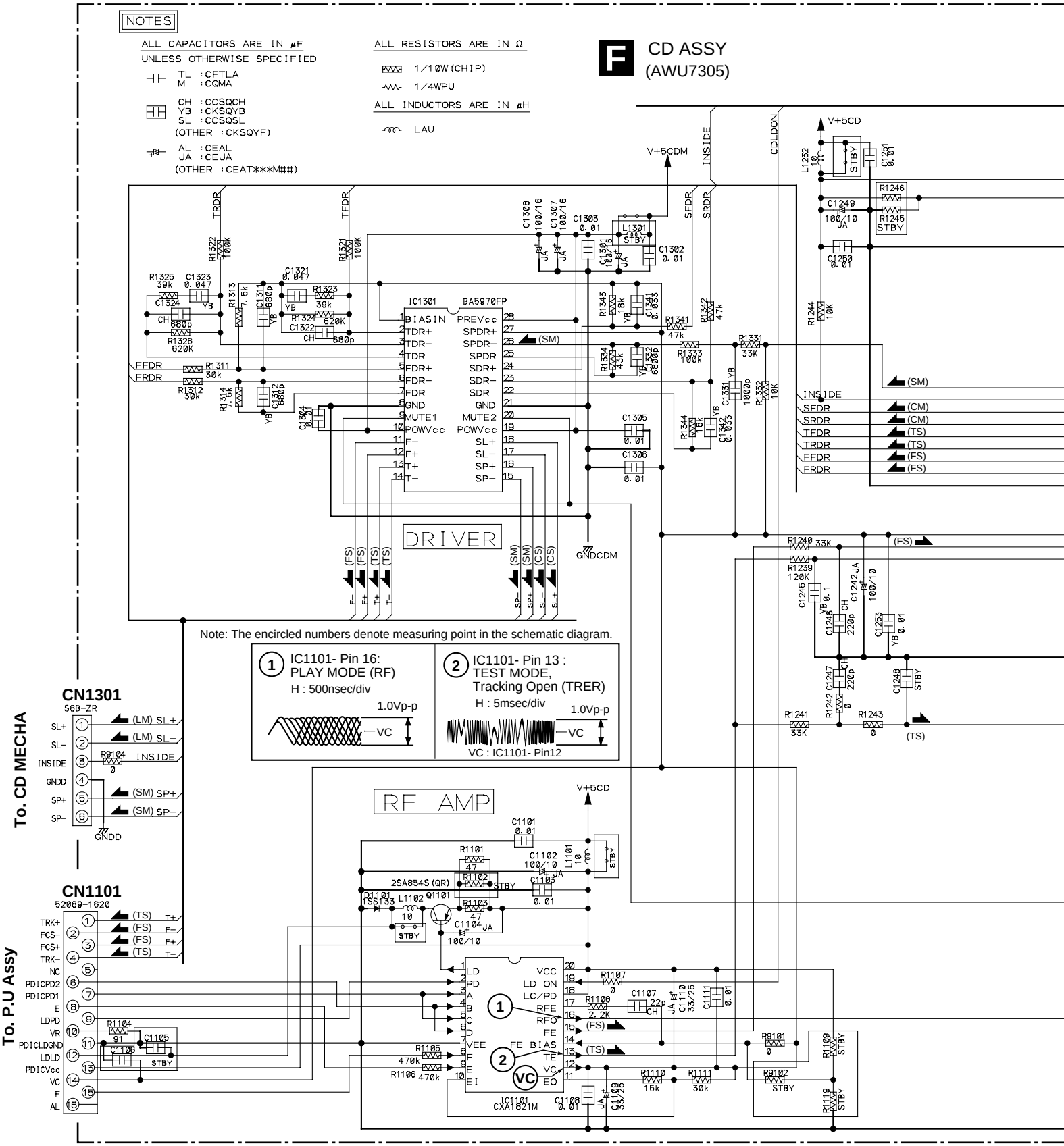
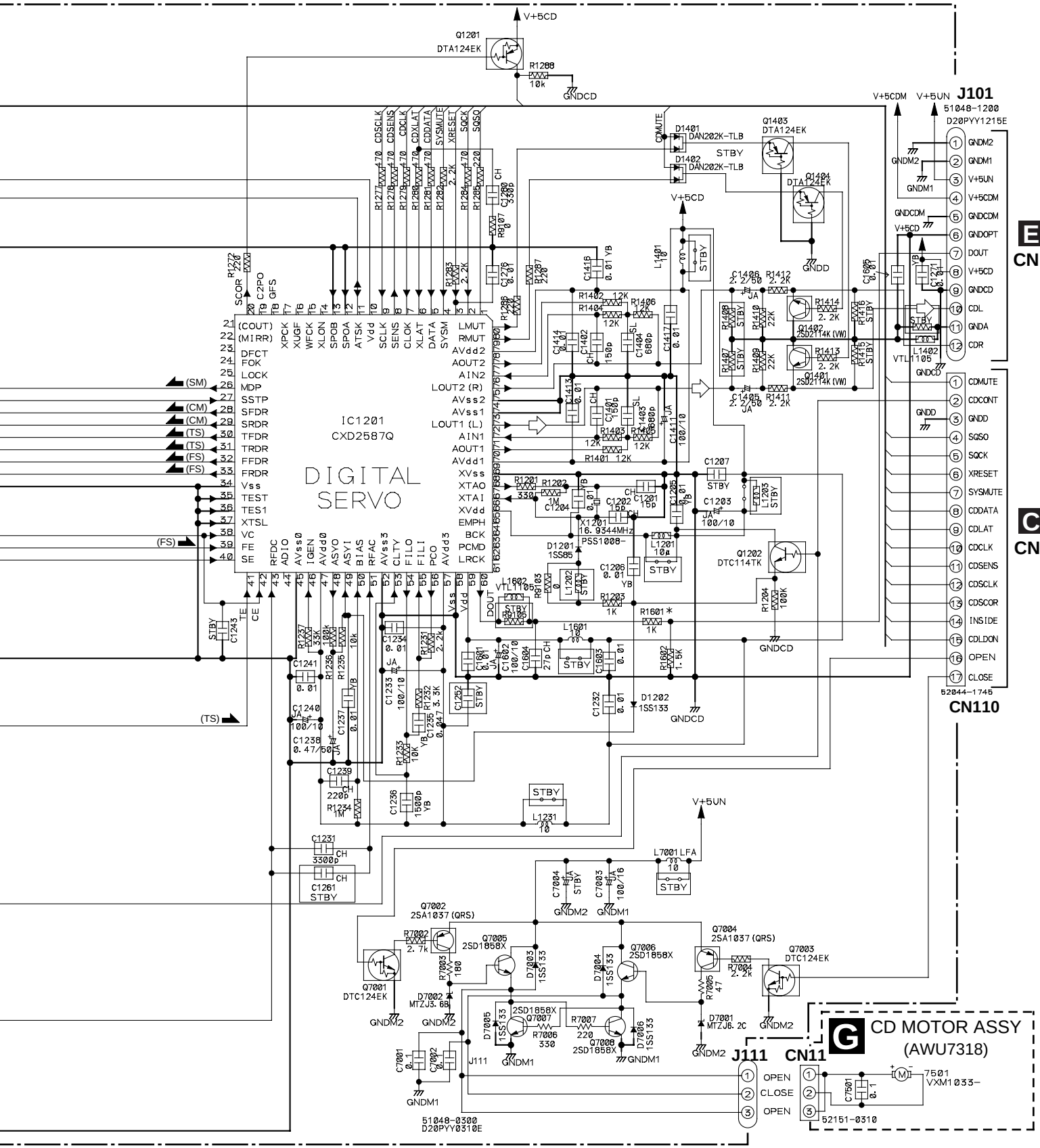
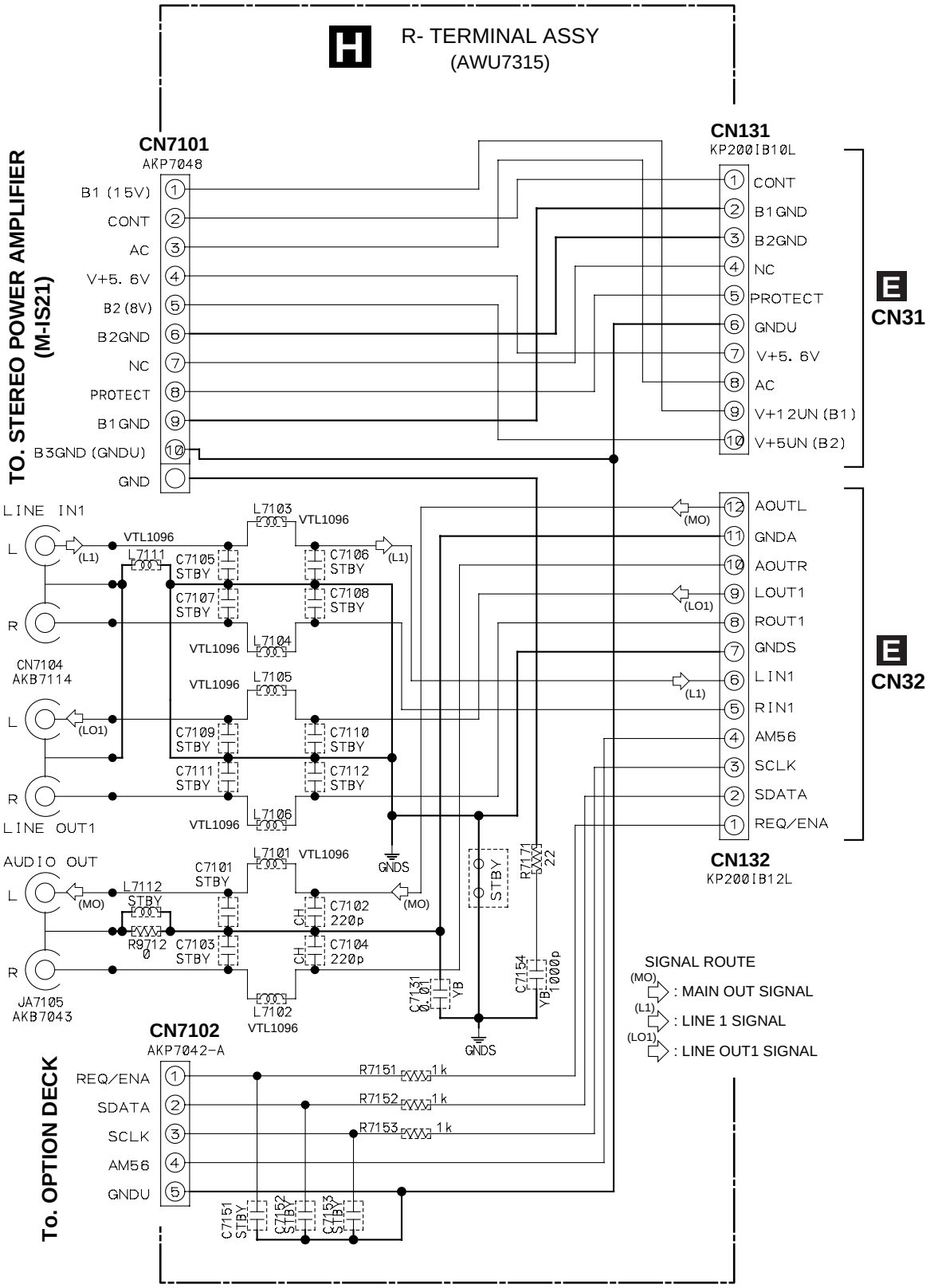

J103
CN3
KPE9
V+5OPT
OPT IN/OUT
GNDOPT
GNDSS
ROUT2
RIN2
GNDA
LIN2
LOUT2
NOTES
ALL CAPACITORS ARE IN μF
UNLESS OTHERWISE SPECIFIED
TL :CFTLA
M :CQMA
CH :CCSQCH
YB :CKSQYB
SL :CCSQSL (OTHER :CKSQYF)
AL :CEAL
JA :CEJA
(OTHER :CEAT***M###)
ALL RESISTORS ARE IN Ω
1/10W(CHIP)
1/4WPU
ALL INDUCTORS ARE IN μH
LAU
CN31
KM200IB10
CONT
B1GND
B2GND
NC
PROTECT
GNDU
V+5_6V
AC
V+12UN
V+5UN
CN131
CN132
AOUTL
GNDA
AOUTR
LOUT1
ROUT1
GNDS
LIN1
RIN1
AM56
SCLK
SDATA
REQ/ENA
KM200IB1
CN32
IC3003 (1/2) STBY
IC3003 (2/2) STBY
IC3002 NJM4558MD (1/2)
IC3002 NJM4558MD (2/2)
Q3009 2SD2114K (VW)
Q3010 2SD2114K (VW)
Q3005 2SD2114K (VW)
Q3006 2SD2114K (VW)
DTA143EK-TLB Q3011
Q3013 DTA143EK-TLB
Q3015 DTA143EK-TLB
Q3014 DTC124EK-TLB
2SD2395 (DEF) Q2001
D3011 1SS355
D3006 1SS133
D3007 1SS133
D3009 S5688G
D3008 S5688G
IC141 NJM7805FA ANH-309-
IC131 ANH-309-NJM7812FA
IC3100 STBY
LINE_CONT
LINE2_MUTE
LINE1_MUTE
(LO1)
(LO2)
(LO)
(L2)
(MO)
(L1)
AL1
AL2
AR1
AR2

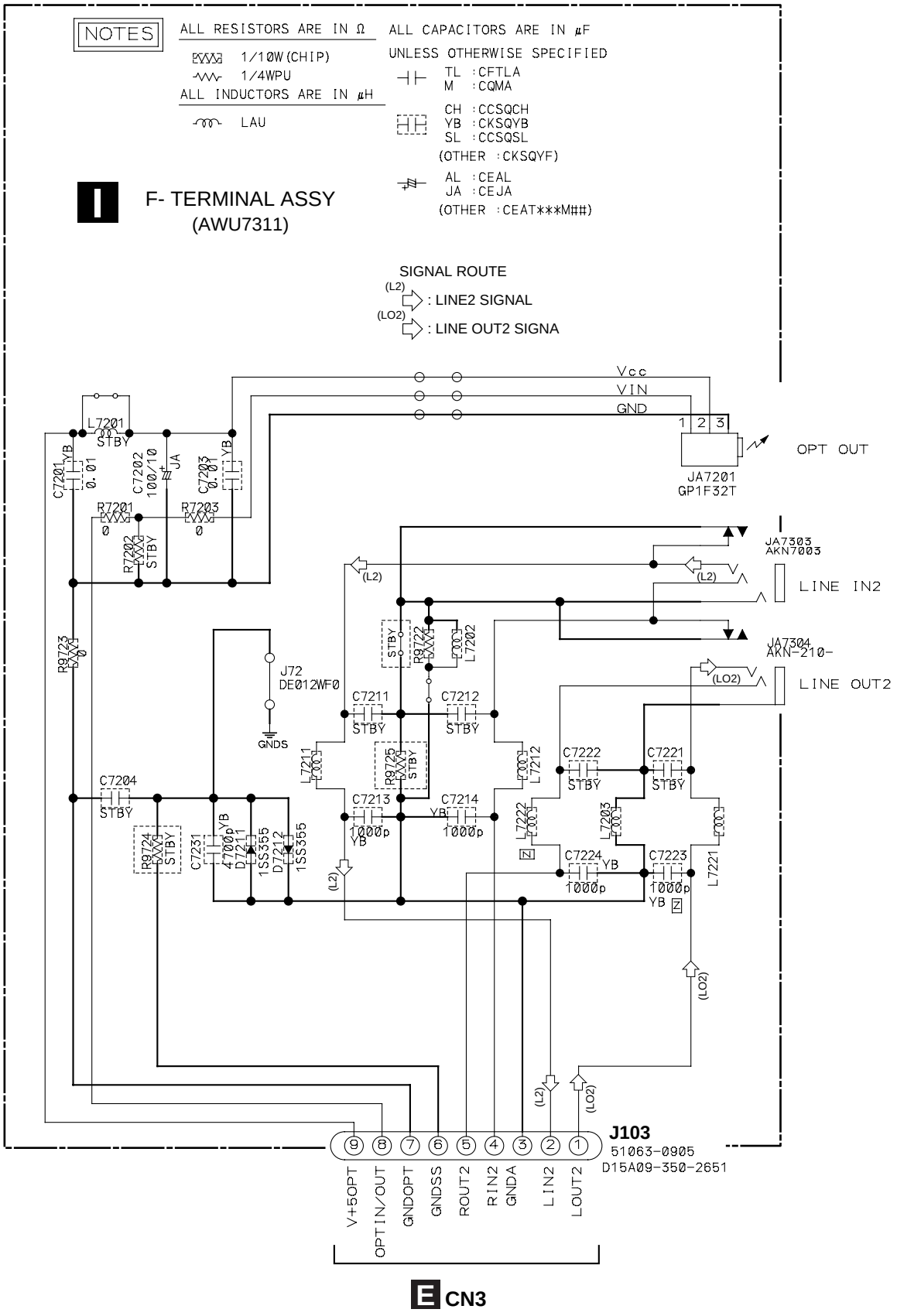
3.6 CD and CD MOTOR ASSYS



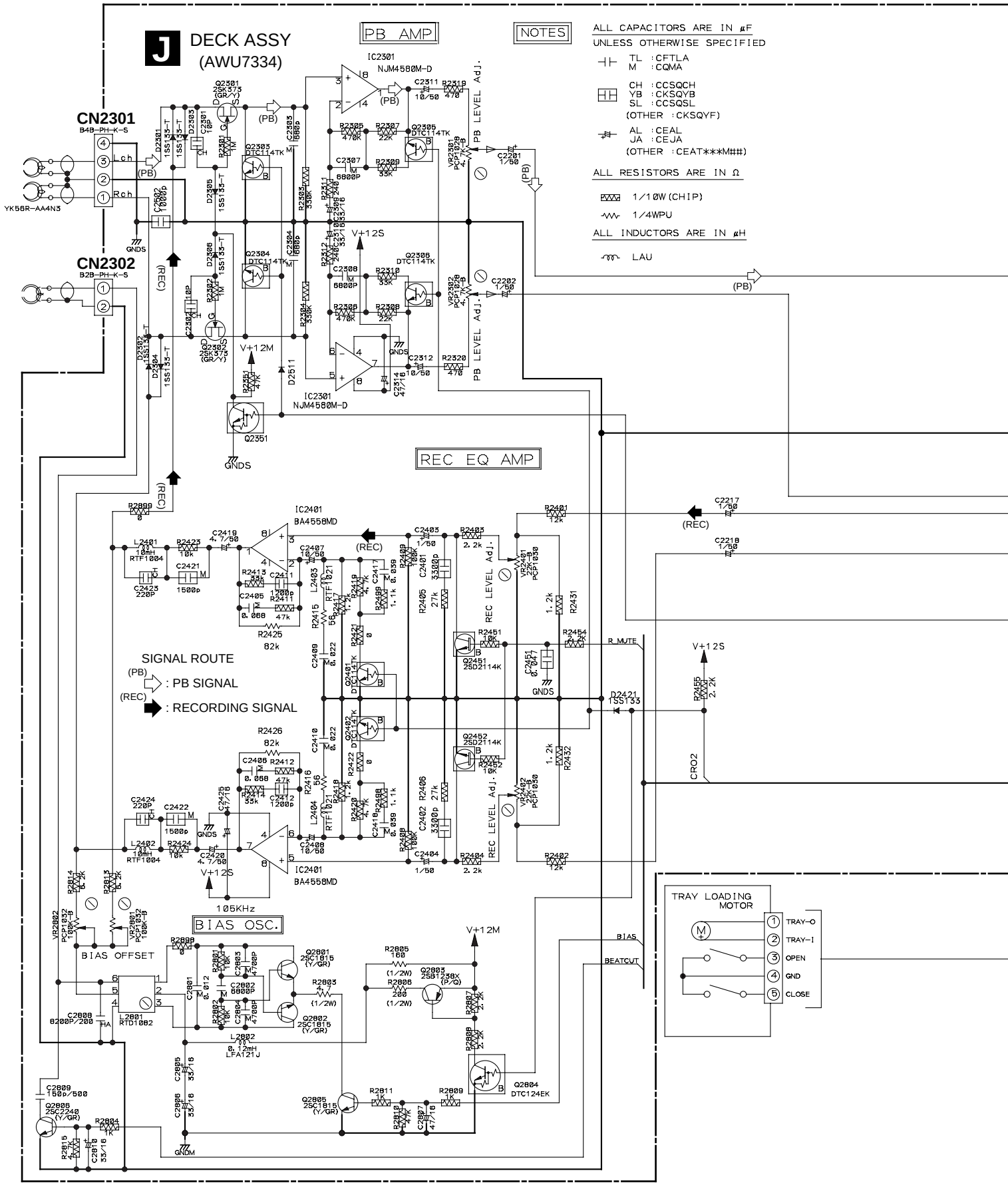

IC1201
CXD2587Q
DIGITAL
SERVO
V+5CD
V+5UN
V+5CDM
J101
51048-1200
D20PYY1215E
CN1
CN10
CN110
J111
CN11
CD MOTOR ASSY
(AWU7318)
STBY
GNDCD
GNDD
GNDM1
GNDM2
51048-0300
D20PYY0310E
52044-1745
52151-0310

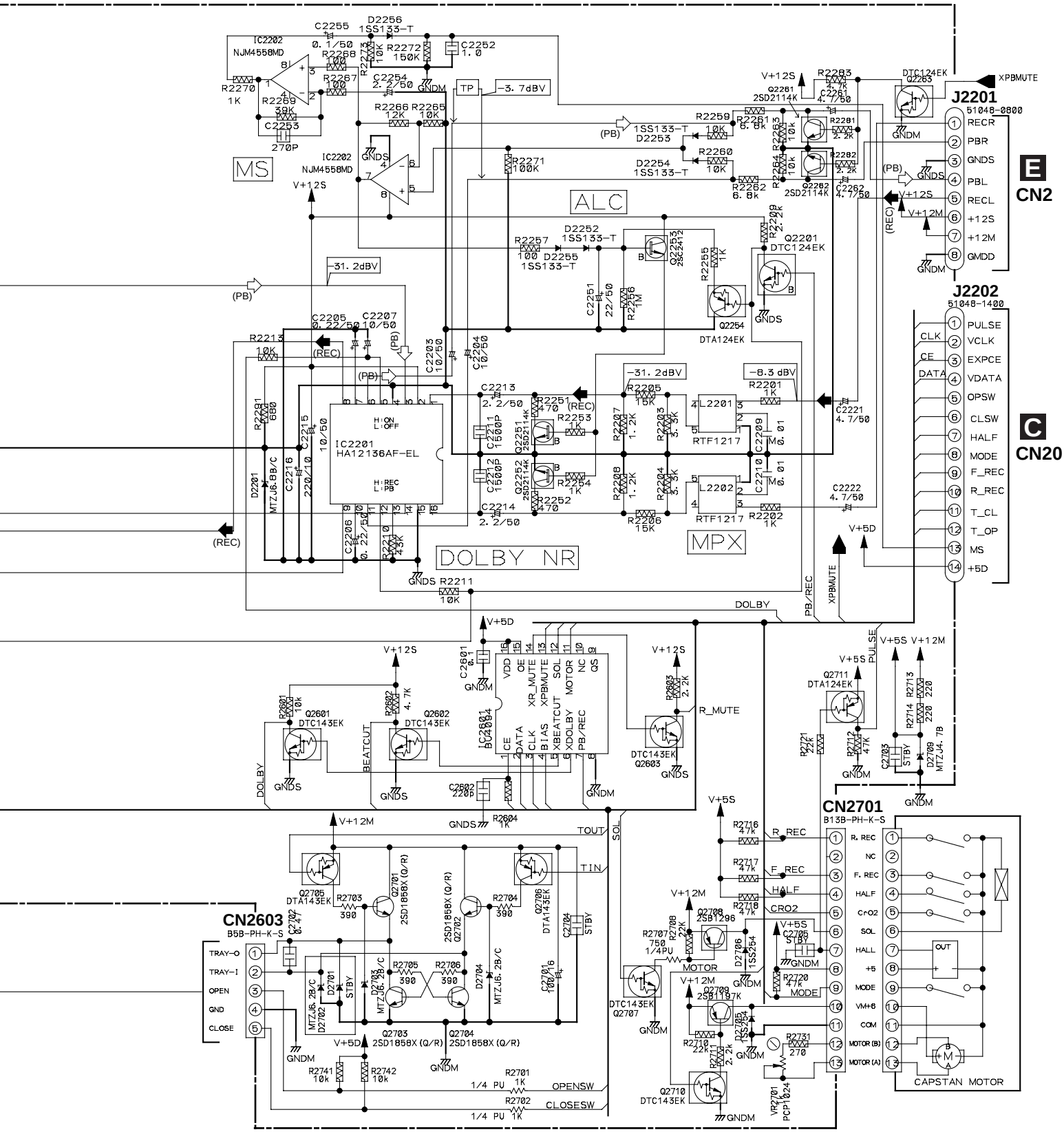
3.7 R-TERMINAL and F-TERMINAL ASSYS



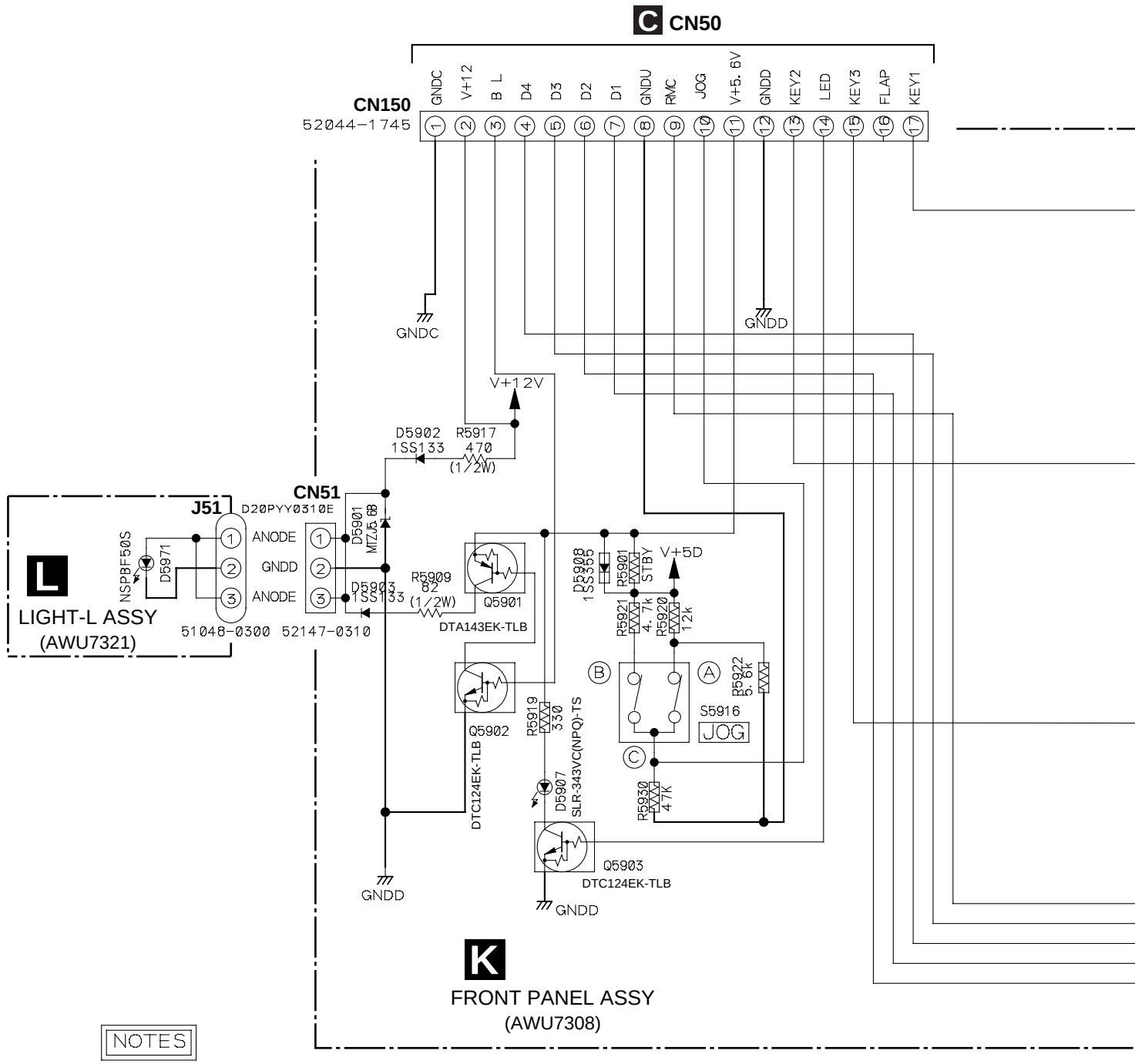

NOTES
ALL RESISTORS ARE IN Ω
1/10W(CHIP)
1/4WPU
ALL INDUCTORS ARE IN μH
LAU
ALL CAPACITORS ARE IN μF
UNLESS OTHERWISE SPECIFIED
TL :CFTLA
M :CQMA
CH :CCSQCH
YB :CKSQYB
SL :CCSQSL
(OTHER :CKSQYF)
AL :CEAL
JA :CEJA
(OTHER :CEAT***M##)
I F- TERMINAL ASSY (AWU7311)
SIGNAL ROUTE
(L2) : LINE2 SIGNAL
(LO2) : LINE OUT2 SIGNA
Vcc
VIN
GND
OPT OUT
JA7201
GP1F32T
JA7303
AKN7003
LINE IN2
JA7304
AKN-210-
LINE OUT2
J72
DE012WF0
GNDS
J103
51063-0905
D15A09-350-2651
V+5OPT
OPTIN/OUT
GNDOPT
GNDSS
ROUT2
RIN2
GNDA
LIN2
LOUT2
E CN3

3.8 DECK ASSY


J DECK ASSY (AWU7334)
PB AMP
NOTES
ALL CAPACITORS ARE IN μF
UNLESS OTHERWISE SPECIFIED
TL : CFTLA
M : CQMA
CH : CCSQCH
YB : CKSQYB
SL : CCSQSL
(OTHER : CKSQYF)
AL : CEAL
JA : CEJA
(OTHER : CEAT***M###)
ALL RESISTORS ARE IN Ω
1/10W (CHIP)
1/4WPU
ALL INDUCTORS ARE IN μH
LAU
CN2301
B4B-PH-K-S
Lch
Rch
YK56R-AA4N5
CN2302
B2B-PH-K-S
IC2301
NJM4580M-D
PB LEVEL Adj.
V+12S
V+12M
GNDS
GNDM
REC EQ AMP
IC2401
BA4558MD
REC LEVEL Adj.
SIGNAL ROUTE
(PB) : PB SIGNAL
(REC) : RECORDING SIGNAL
R_MUTE
CRO2
BIAS OSC.
105KHz
BIAS OFFSET
BIAS
BEATCUT
TRAY LOADING MOTOR
TRAY-O
TRAY-I
OPEN
GND
CLOSE


MS
ALC
DOLBY NR
MPX
IC2201
HA12136AF-EL
IC2202
NJM4558MD
J2201
51048-0800
RECR
PBR
GNDS
PBL
RECL
+12S
+12M
GMDD
J2202
51048-1400
PULSE
VCLK
EXPCE
VDATA
OPSW
CLSW
HALF
MODE
F_REC
R_REC
T_CL
T_OP
MS
+5D
CN2
CN20
CN2603
B5B-PH-K-S
TRAY-O
TRAY-I
OPEN
GND
CLOSE
CN2701
B13B-PH-K-S
R. REC
NC
F. REC
HALF
CrO2
SOL
HALL
+5
MODE
VM+B
COM
MOTOR (B)
MOTOR (A)
CAPSTAN MOTOR
OUT
V+12S
V+12M
V+5D
V+5S
GNDM
GNDS
XPBMUTE
PB/REC
DOLBY
BEATCUT
R_MUTE
TOUT
TIN
SOL
OPENSW
CLOSESW
-3.7dBV
-31.2dBV
-8.3dBV

3.9 FRONT PANEL, LIGHT-L, CD OPEN SW and CD CLOSE SW ASSYS



NOTES

ALL CAPACITORS ARE IN μF
UNLESS OTHERWISE SPECIFIED

TL : CFTLA
M : CQMA

CH : CCSQCH
YB : CKSQYB
SL : CCSQSL
(OTHER : CKSQYF)

AL : CEAL
JA : CEJA
(OTHER : CEAT***M##)

ALL RESISTORS ARE IN Ω

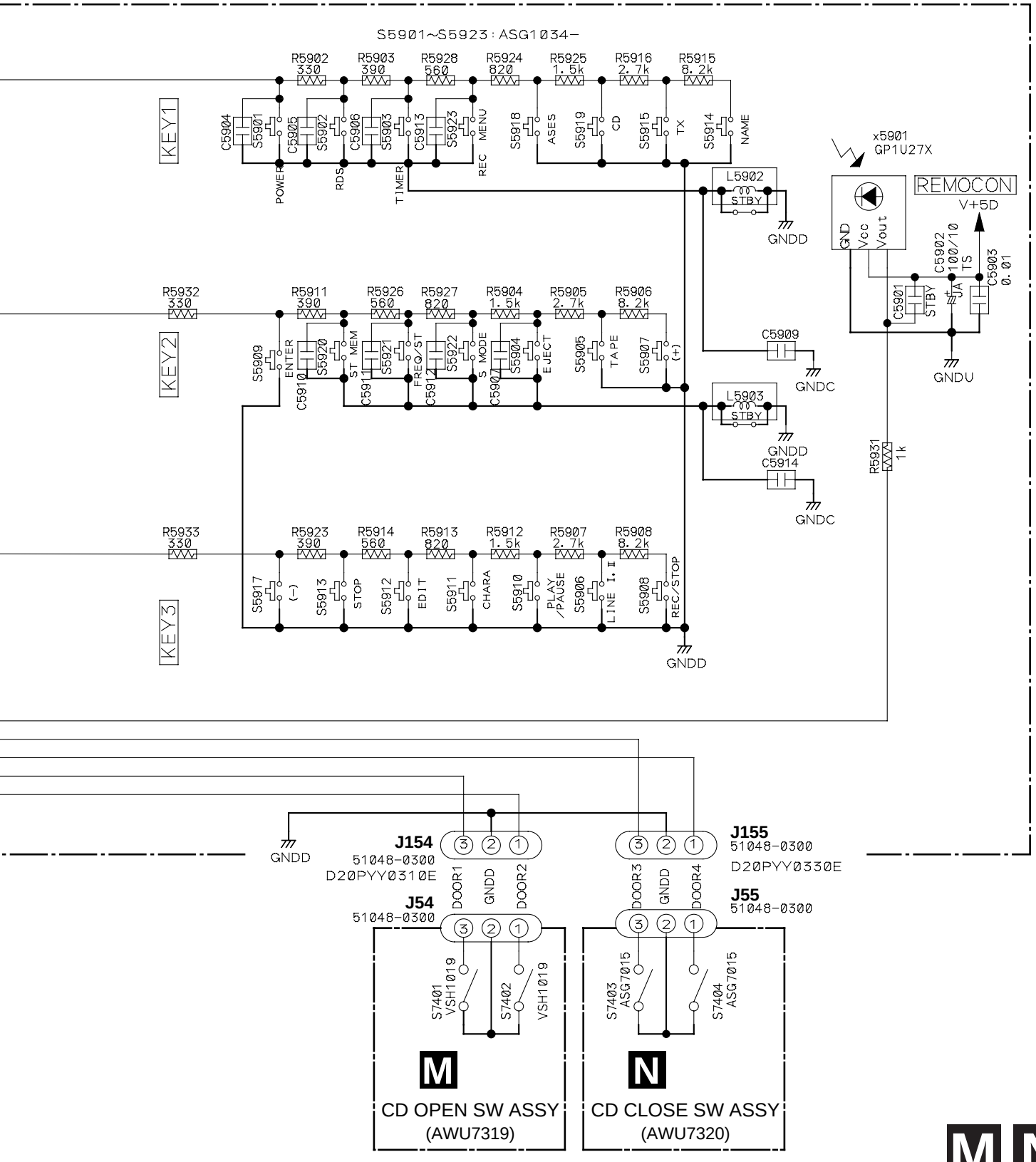
1/10W(CHIP)
1/4WPU

ALL INDUCTORS ARE IN μH

LAU

FRONT PANEL ASSY (SW name)

S5901: POWER (STANDBY/ON)
S5902: DISPLAY/RDS
S5903: TIMER REC/WAKE UP
S5904: TAPE/OPEN/CLOSE
S5905: TAPE
S5906: LINE1, 2
S5907: ◀◀ · ⏮ /TUNING+
S5908: REC/STOP
S5909: TREBLE
S5910: PLAY/PAUSE
S5911: ST.WIDE
S5912: BASS
S5913: STOP
S5914: BALANCE
S5915: TUNER
S5916: VOLUME/JOG
S5917: ⏭ · ▶▶ /TUNING-
S5918: BALANCE
S5919: CD
S5920: STATION MEMORY
S5921: FREQ/STATION
S5922: REVERSE
S5923: DOLBY NR ON/OFF



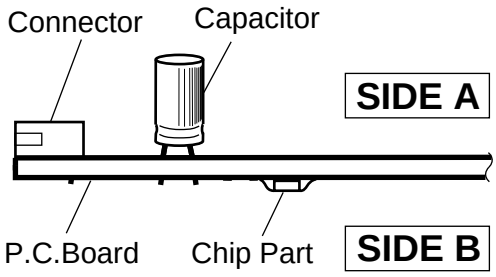
4. PCB CONNECTION DIAGRAM

NOTE FOR PCB DIAGRAMS :

1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
B C E	B C E B C E	Transistor
B C E	B C E B C E	Transistor with resistor
D G S	D G S D G S	Field effect transistor
		Resistor array
		3-terminal regulator

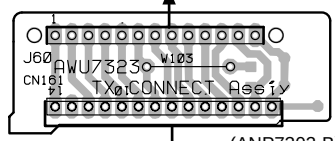
3. The parts mounted on this PCB include all necessary parts for several destinations.
   For further information for respective destinations, be sure to check with the schematic diagram.
4. View point of PCB diagrams.



4.1 FM/AM TUNER MODULE and TX CONNECT ASSY

C J60

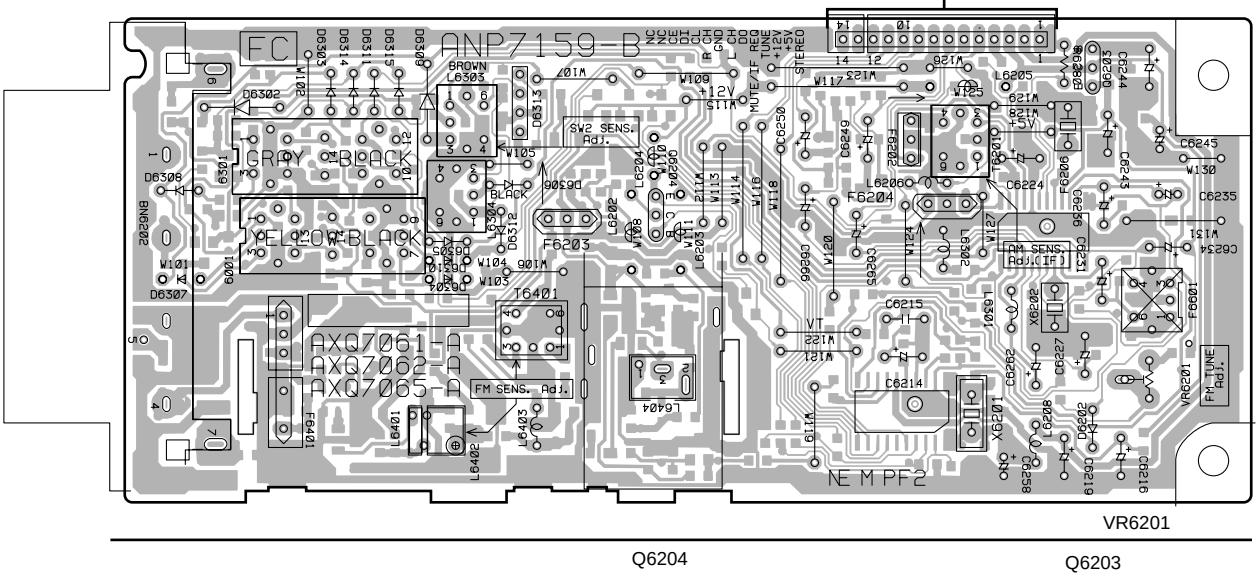
B TX CONNECT ASSY



(ANP7302-B)

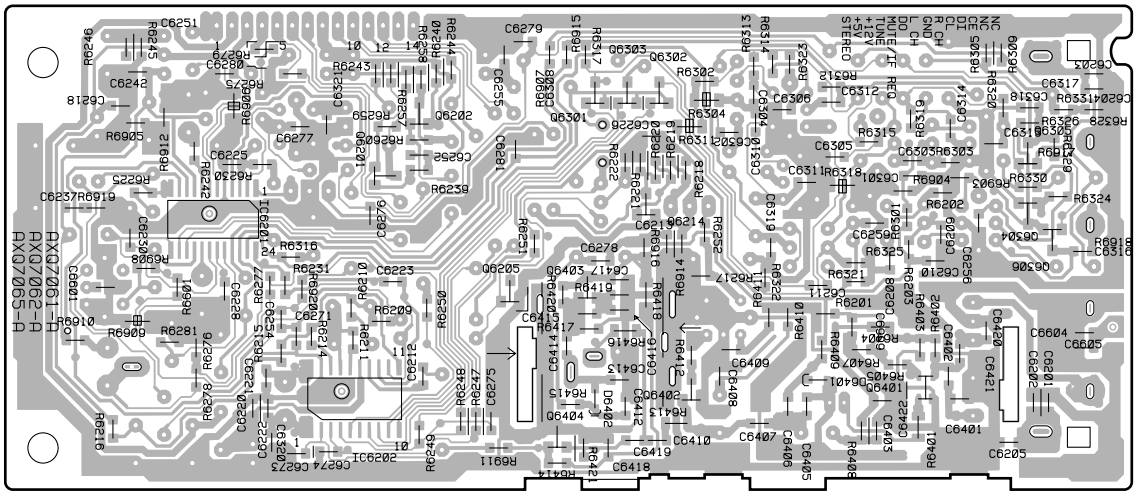
SIDE A

A FM/AM TUNER MODULE



SIDE B

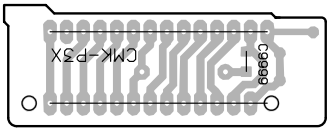
A FM/AM TUNER MODULE



(ANP7159-B)

IC6201 Q6201 Q6202 Q6301 Q6303 Q6302 Q6401 Q6304
IC6202 Q6403 Q6214 Q6306
Q6404 Q6402
Q6205

B TX CONNECT ASSY

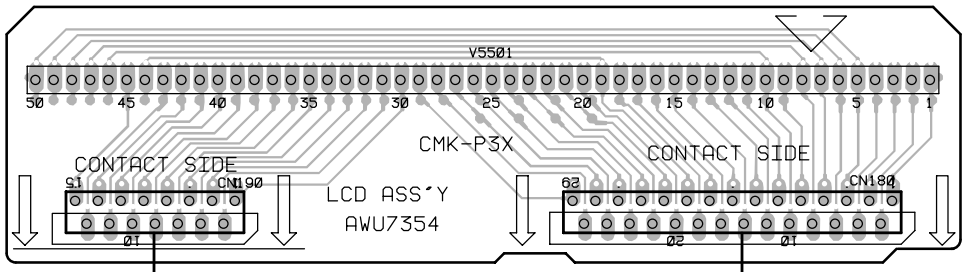


(ANP7302-B)

A **B**

4.2 U-COM and LCD ASSYS

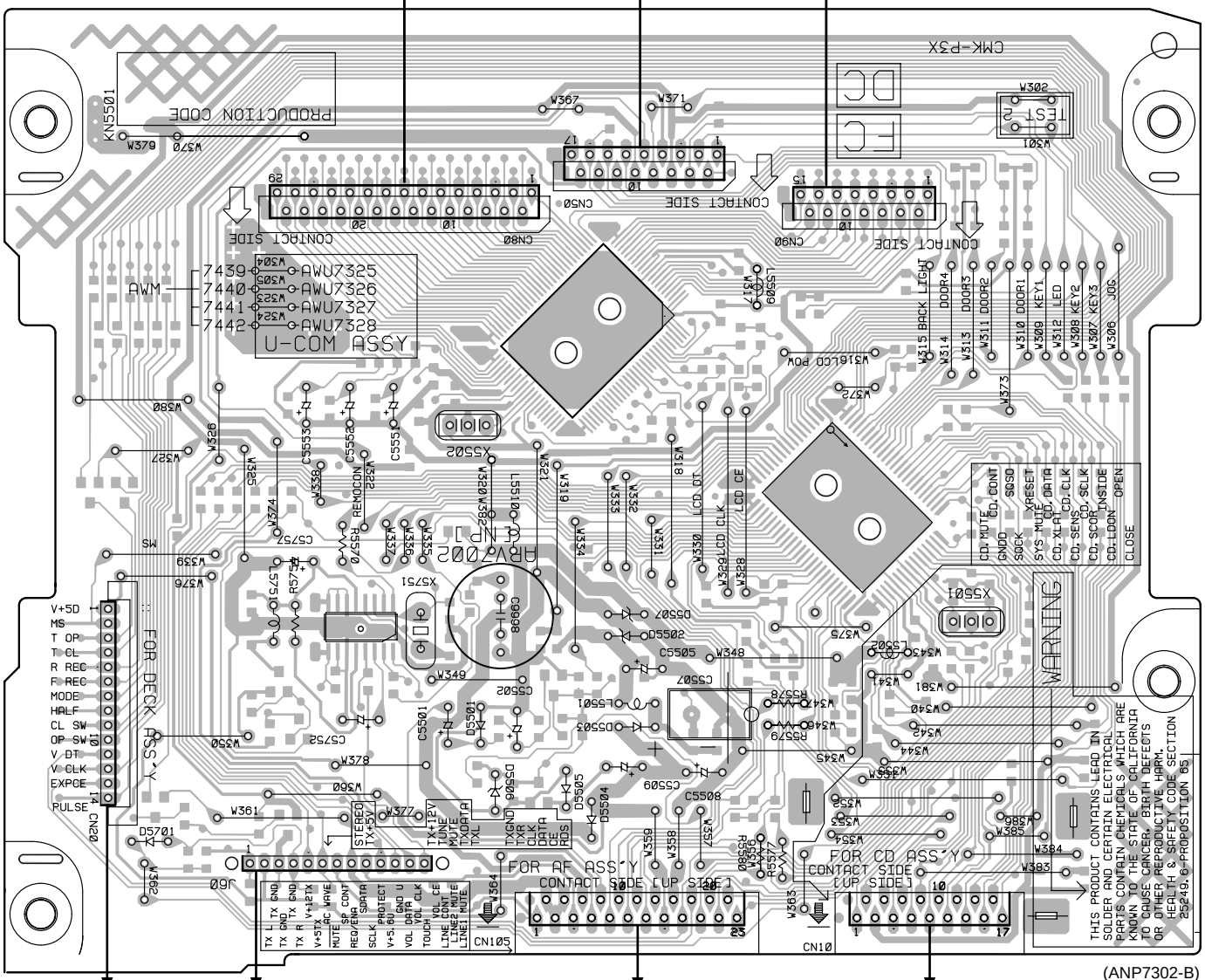
D LCD ASSY



(ANP7301-B)

C U-COM ASSY

K CN150

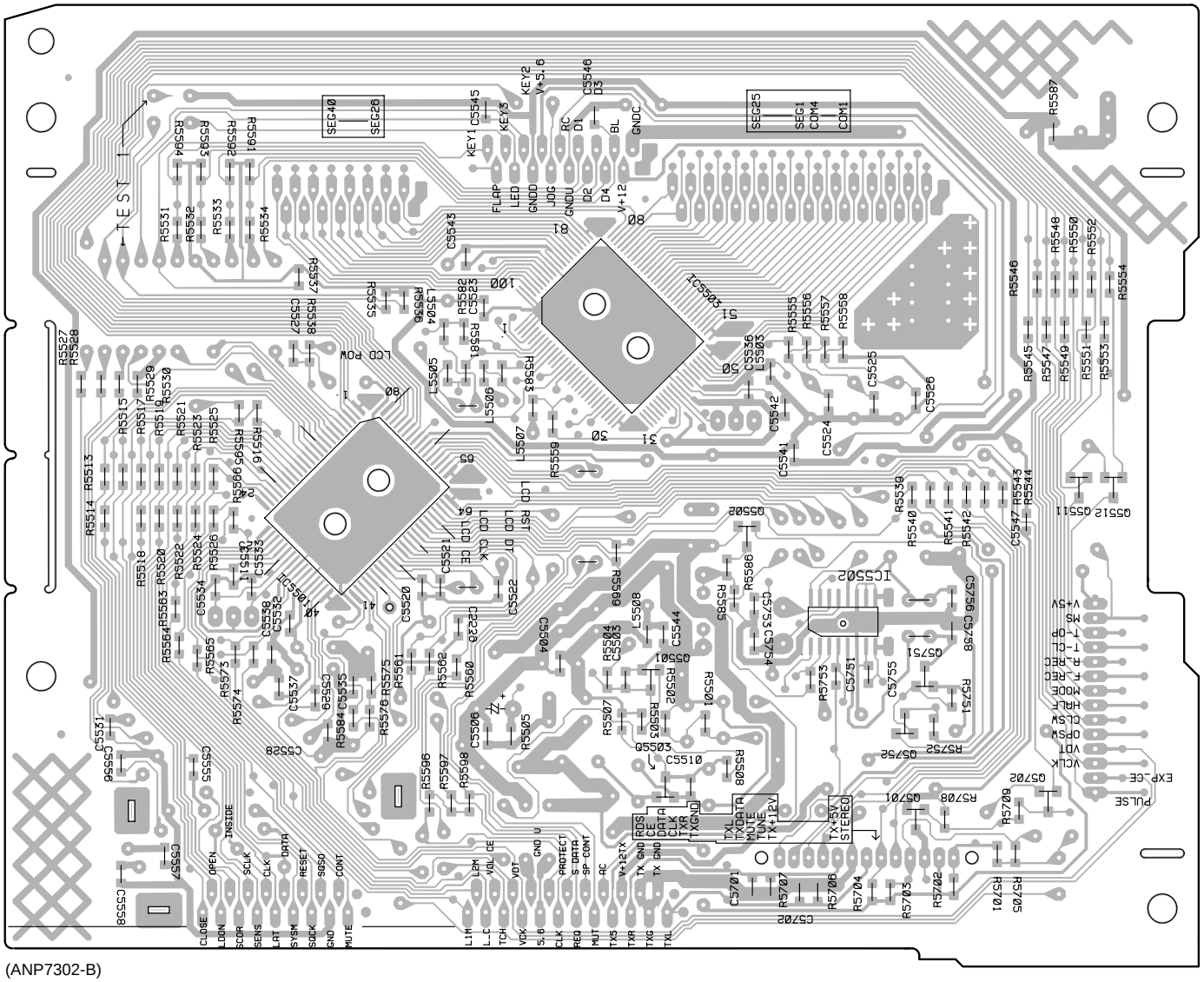

U-COM ASSY
AWM
7439 AWU7325
7440 AWU7326
7441 AWU7327
7442 AWU7328
PRODUCTION CODE
CONTACT SIDE
CN50
CN80
CN90
FOR DECK ASS'Y
FOR AF ASS'Y
FOR CD ASS'Y
CONTACT SIDE [UP SIDE]
WARNING
THIS PRODUCT CONTAINS LEAD IN SOLDER AND CERTAIN ELECTRICAL PARTS CONTAIN CHEMICALS WHICH ARE KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM. HEALTH & SAFETY CODE SECTION 25249.6-PROPOSITION 65

(ANP7302-B)

J J2202 **B** J60 **E** CN5 **F** CN110

SIDE B

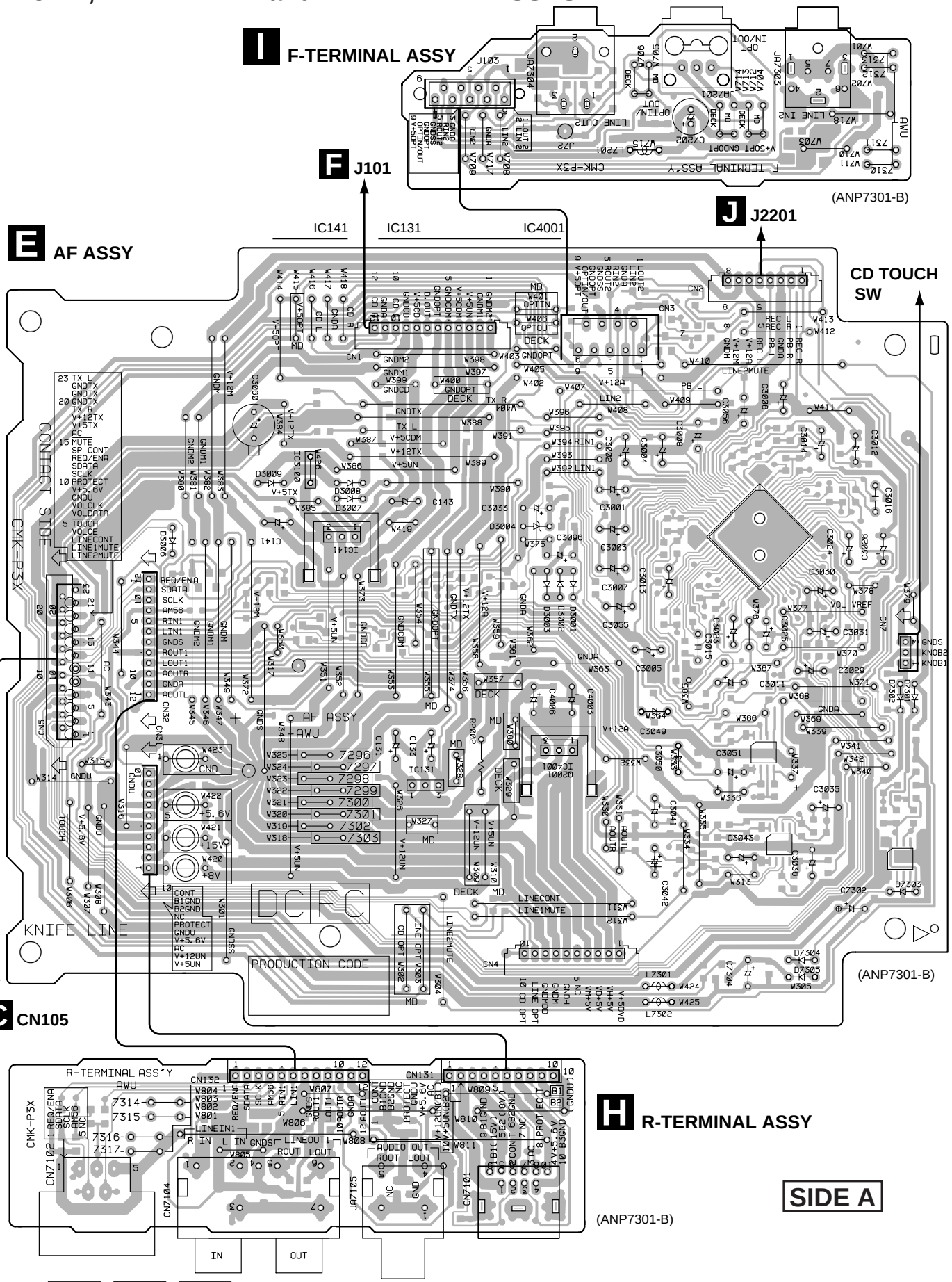
C U-COM ASSY



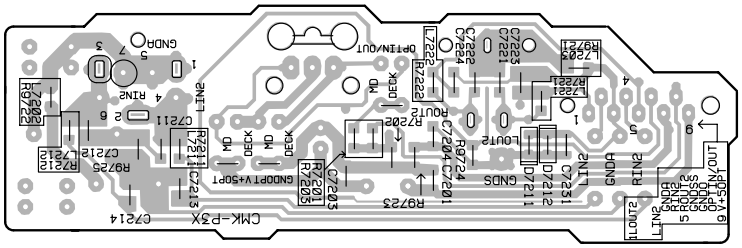
(ANP7302-B)

IC5501 IC5503 IC5502 Q5731 Q5511 Q5512
Q5501 Q5502 Q5752 Q5702
Q5503 Q5701

4.3 AF, F-TERMINAL and R-TERMINAL ASSYS

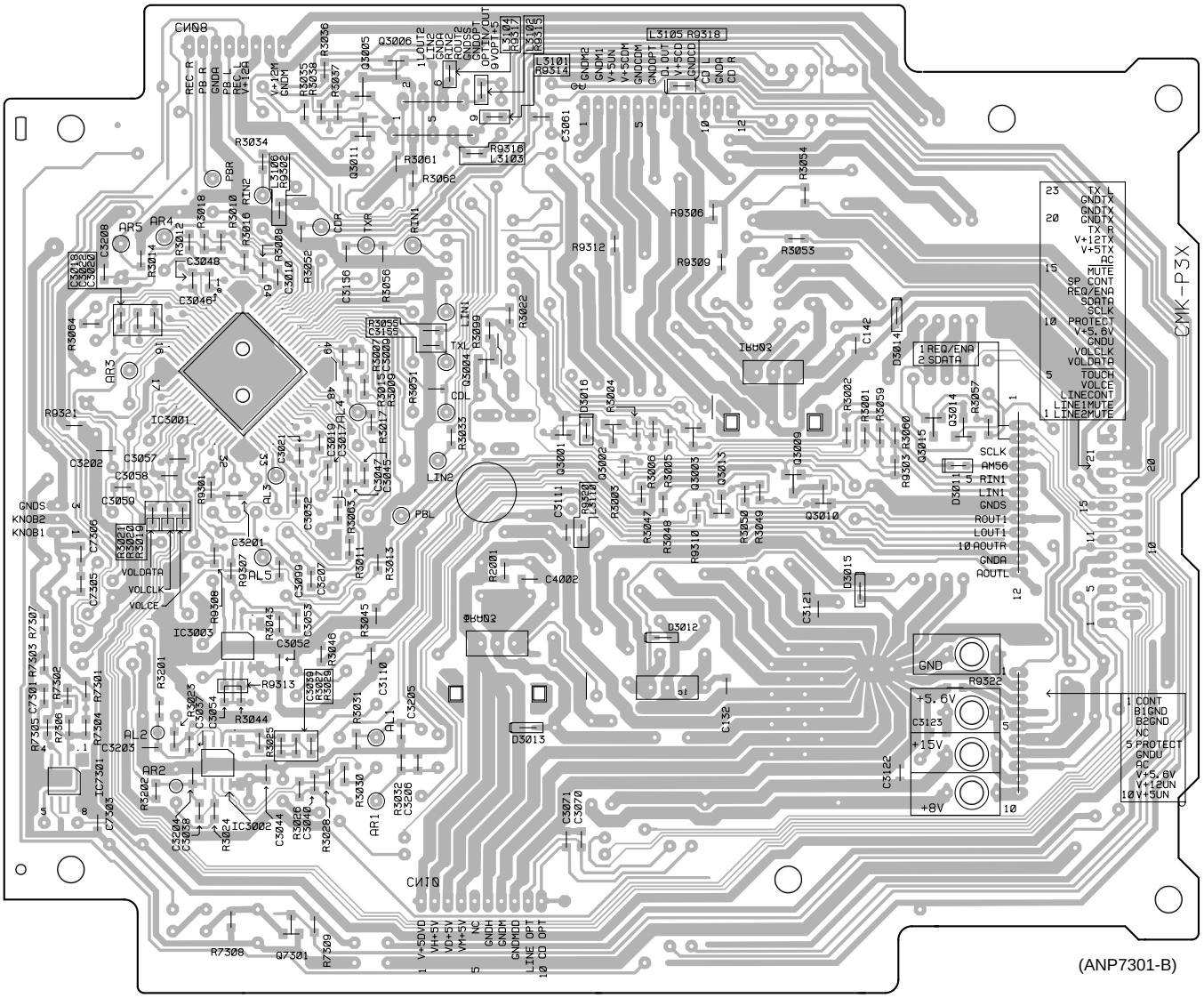


I F-TERMINAL ASSY



(ANP7301-B)

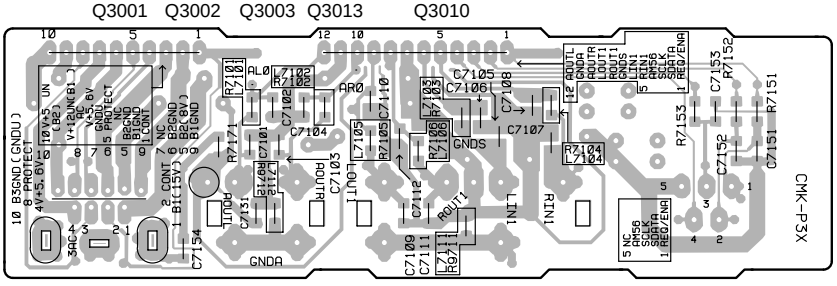
E AF ASSY



(ANP7301-B)

IC7301 IC3002 Q3005 Q3006 Q3004 Q3009 Q3015 Q3014
Q3011 Q3001 Q3002 Q3003 Q3013 Q3010

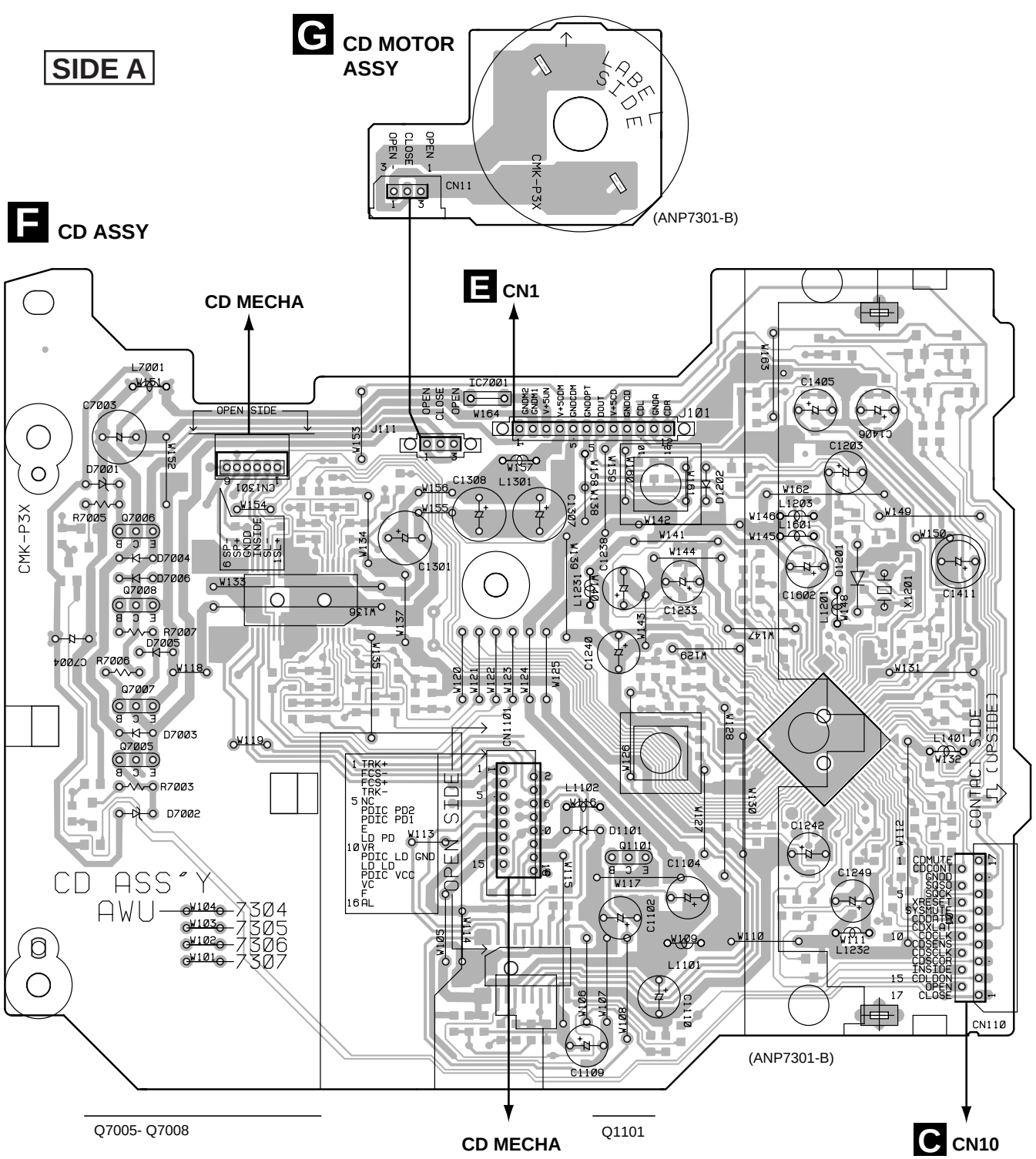
H R-TERMINAL ASSY



(ANP7301-B)

SIDE B

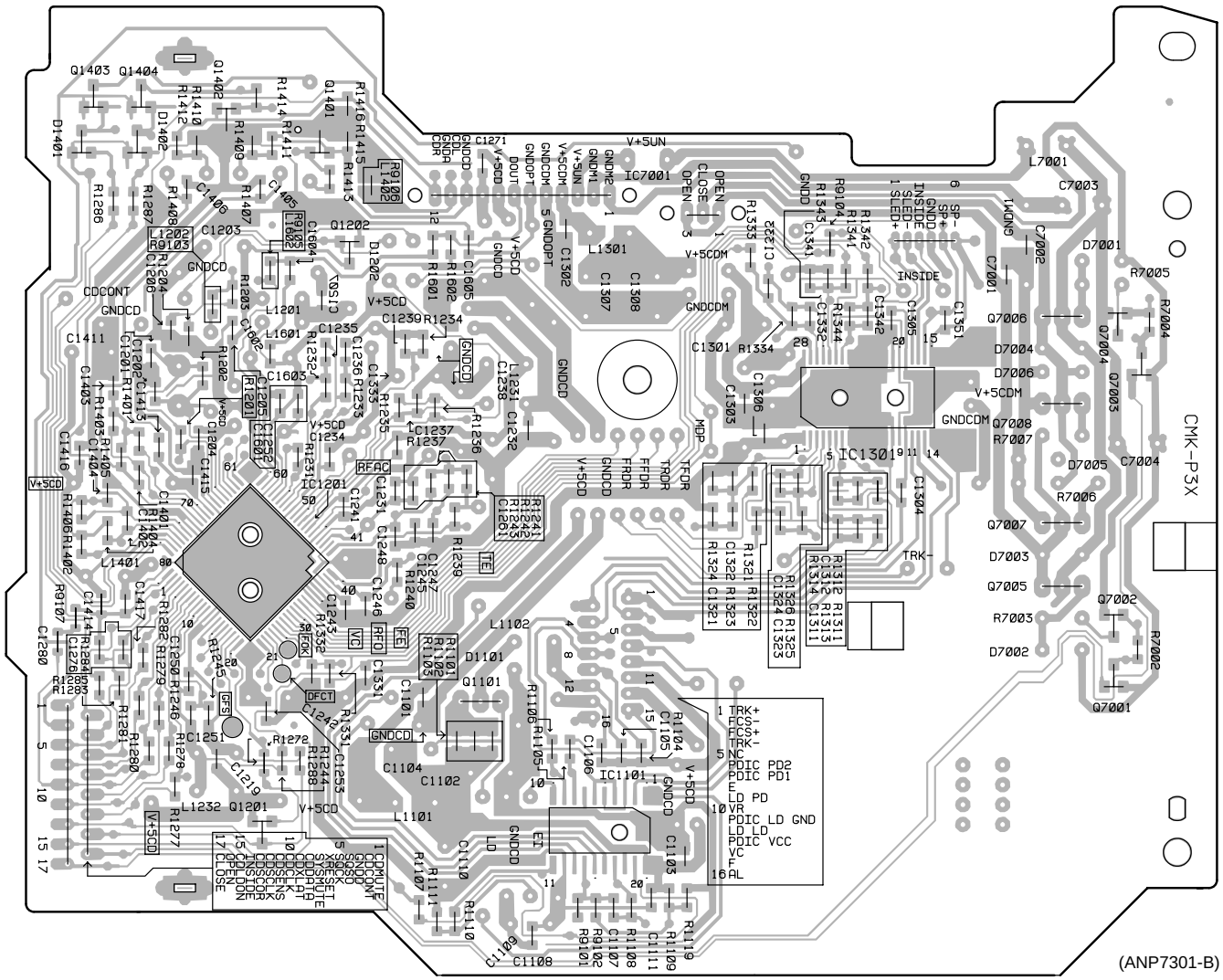
4.4 CD and CD MOTOR ASSYS



SIDE B

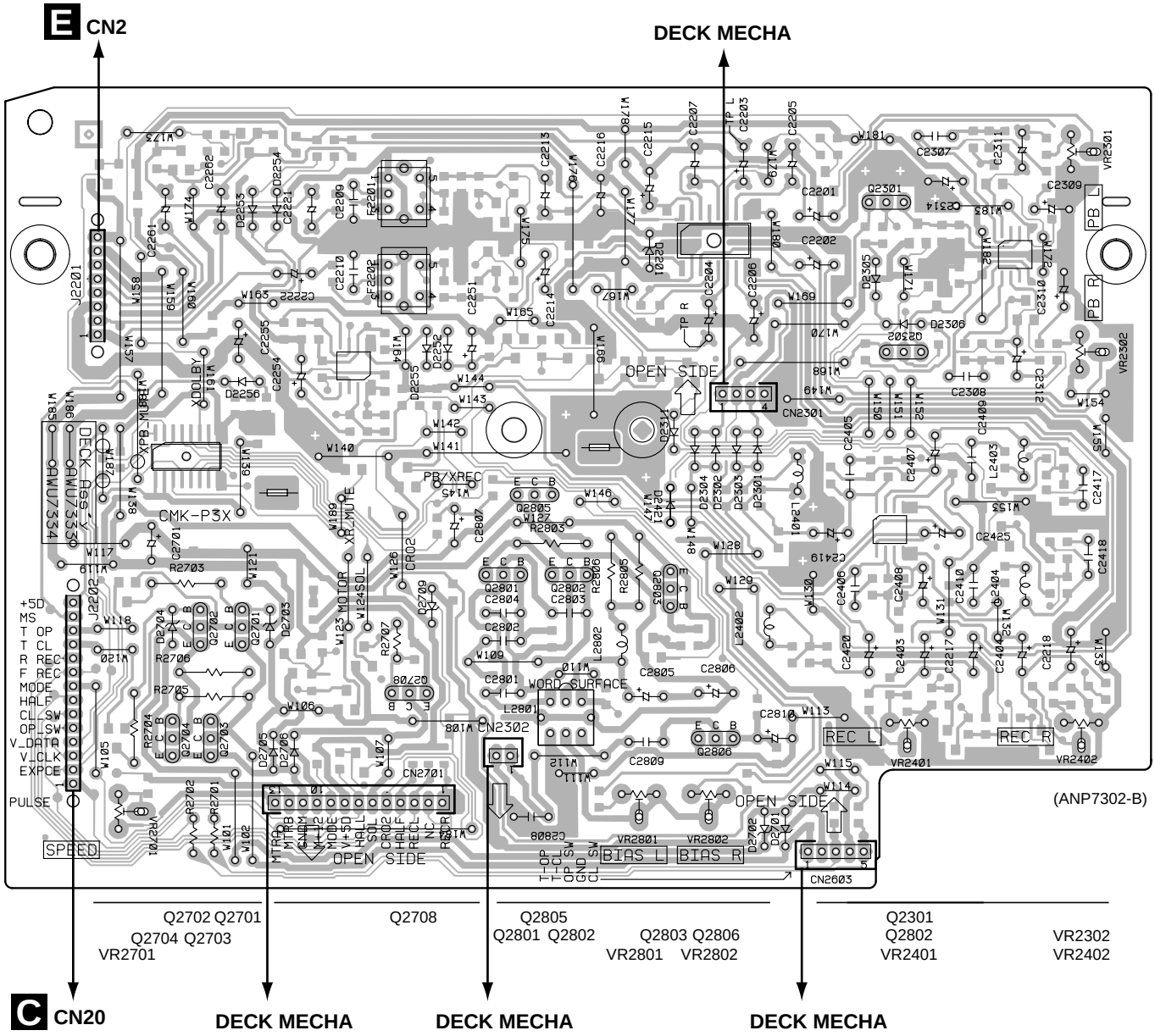
F CD ASSY

Q1403 Q1404 Q1402 Q1401 IC1201 Q1202 IC1301 Q7004 Q7002 Q7003 Q7001


CMK-P3X
IC1301
IC1201
IC1101
IC7001
Q1403 Q1404 Q1402 Q1401 Q1202 Q1201 Q1101
D1401 D1402 D1202 D1101
L1401 L1201 L1601 L1301 L1102 L1232 L1101 L7001
Q7001 Q7002 Q7003 Q7004 Q7005 Q7006 Q7007 Q7008
D7001 D7002 D7003 D7004 D7005 D7006
R7001 R7002 R7003 R7004 R7005 R7006 R7007
V+5CD V+5CDM V+5SUN V+5UN GNDCD GNDCDM GNDDPT GNDM1 GNDM2
CDCONT CDSTB CDSCK CDSDATA CDSENS CDSRST CDSIDE CDPDON CDLDON
TRK+ TRK- FCS+ FCS- NC PDIC PD2 PDIC PD1 LD PD VR PDIC LD GND LD_LD PDIC VCC VC AL
TE FE RFAC RFDC VC DFCT DFOK CFS
SP+ SP- SLED+ SLED- INSIDE OPEN CLOSE
(ANP7301-B)

4.5 DECK ASSY

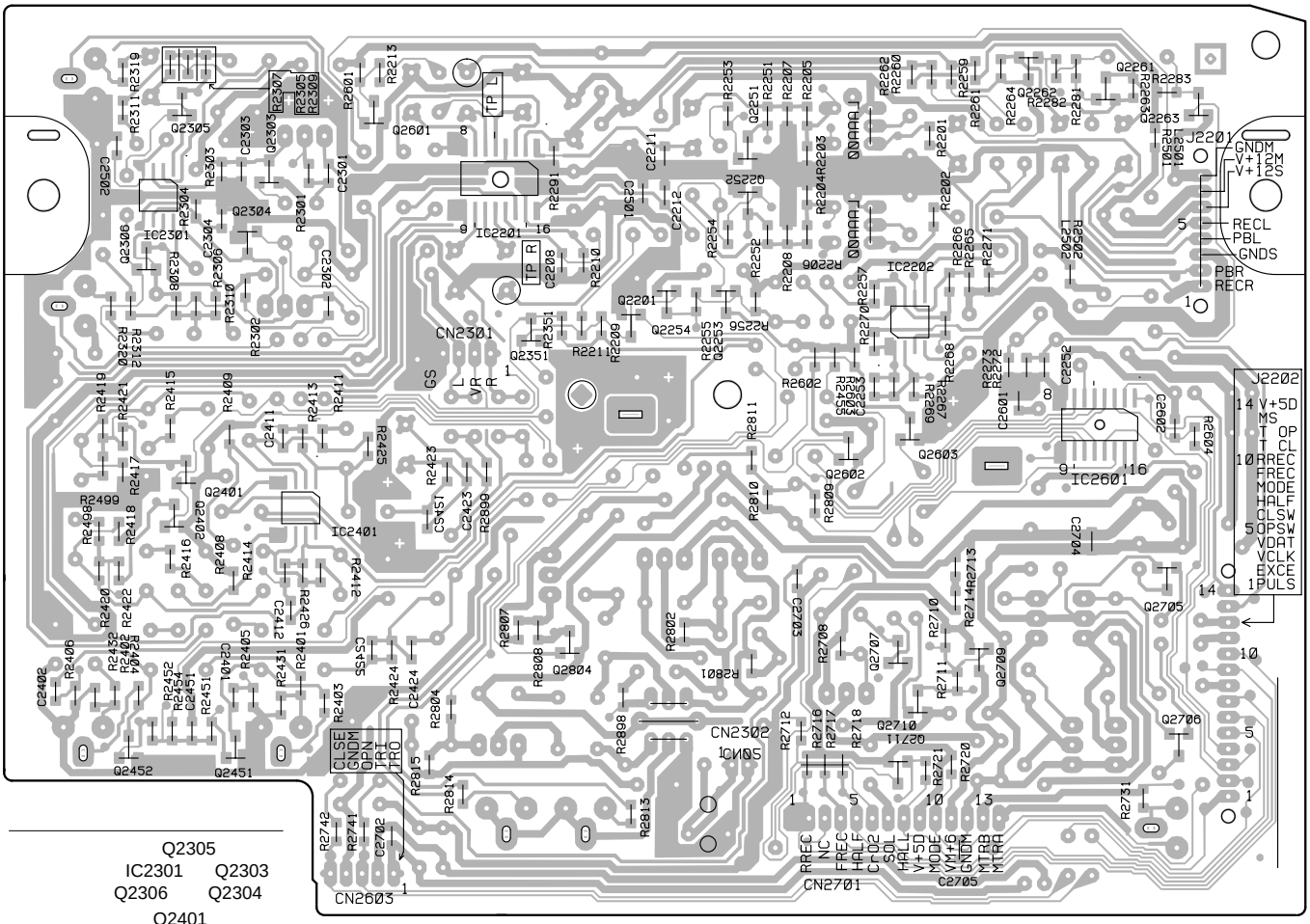
J DECK ASSY



C CN20

SIDE A

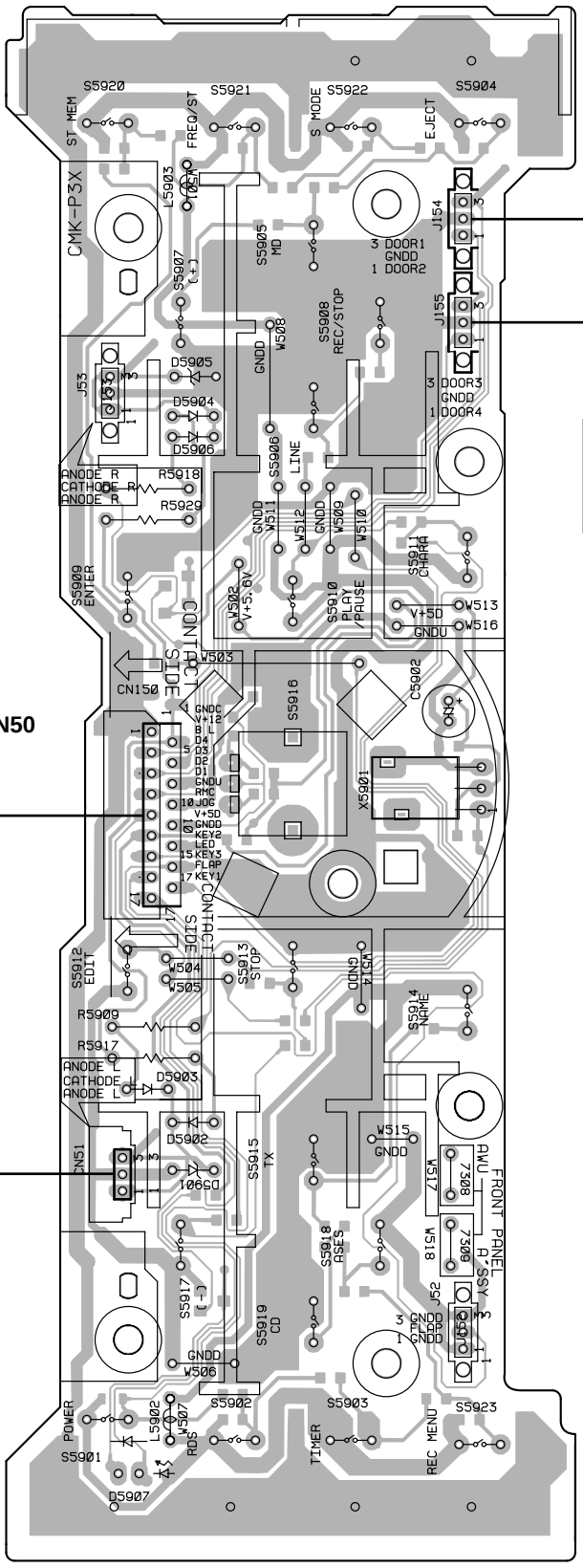
J DECK ASSY



SIDE B

4.6 FRONT PANEL, LIGHT-L, CD CLOSE SW and CD OPEN SW ASSYS

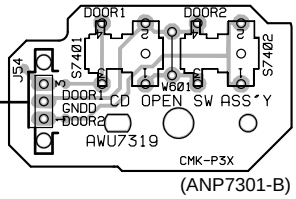
K **FRONT PANEL ASSY**



(ANP7301-B)

M

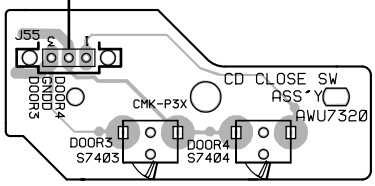
CD OPEN SW ASSY



(ANP7301-B)

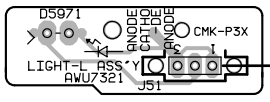
N

CD CLOSE SW ASSY



(ANP7301-B)

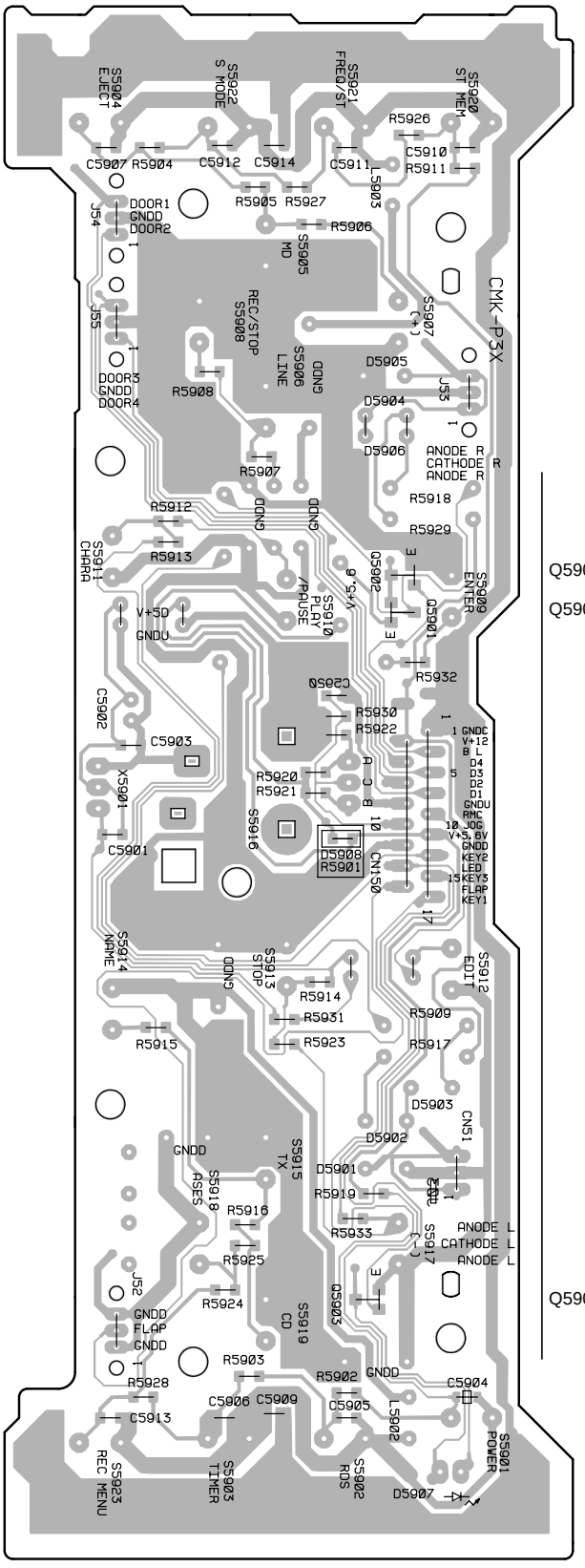
L **LIGHT-L ASSY**



(ANP7301-B)

SIDE A

FRONT PANEL ASSY



SIDE B

5. PCB PARTS LIST

NOTES: ●*Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.*
●*The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
●*When ordering resistors, first convert resistance values into code form as shown in the following examples.*
Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).
560 Ω → 56 × 10¹ → 561 ..... RD1/4PU 5 6 1 J
47k Ω → 47 × 10³ → 473 ..... RD1/4PU 4 7 3 J
0.5 Ω → R50 ..... RN2H R 5 0 K
1 Ω → 1R0 ..... RS1P 1 R 0 K
Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).
5.62k Ω → 562 × 10¹ → 5621 ..... RN1/4PC 5 6 2 1 F

Mark	No.	Description	Part No.

LIST OF ASSEMBLIES

	FM/AM TUNER MODULE	AXQ7065
NSP	COMPLEX ASSY	AWM7433
	├ AF ASSY	AWU7298
	├ CD ASSY	AWU7305
	├ FRONT PANEL ASSY	AWU7308
	├ F-TERMINAL ASSY	AWU7311
	├ R-TERMINAL ASSY	AWU7315
	├ CD MOTOR ASSY	AWU7318
NSP	├ CD OPEN SW ASSY	AWU7319
NSP	├ CD CLOSE SW ASSY	AWU7320
NSP	├ LIGHT-L ASSY	AWU7321
NSP	└ LCD ASSY	AWU7354
NSP	DECK-COMP ASSY	AWM7441
NSP	├ TX CONNECT ASSY	AWU7323
	├ U-COM ASSY	AWU7327
	└ DECK ASSY	AWU7334

A FM/AM TUNER MODULE

SEMICONDUCTORS

IC6201	LA1832ML
IC6202	LC72131MD
Q6402	2SC2223
Q6203	2SC2705
Q6201, Q6202	2SC2712
Q6214, Q6403	2SC2714
Q6404	2SK302
Q6401	3SK194
Q6204	DTA124ES
Q6205	DTC124EK
D6202	1SS254
D6401, D6402	1T378A

COILS AND FILTERS

L6404	ATC1003
L6401	ATC1020
L6402	ATC1021
F6204	ATF-107
F6203	ATF-119
F6401	ATF-155
F6206	ATF7008
F6202	ATF7011
L6206, L6208, L6403	LAU2R2J

TRANSFORMERS

T6201	ATB7008
T6401	ATE7002

CAPACITORS

C6208	CCSQCH100D50
C6212, C6274, C6275, C6408	CCSQCH101J50
C6412	CCSQCH102J50
C6221, C6222, C6416	CCSQCH150J50
C6271	CCSQCH200J50
C6415	CCSQCH330J50
C6406	CCSQCH331J50
C6401, C6419	CCSQCH5R0C50
C6407	CCSQCK1R0C50
C6410	CCSQCK2R0C50
C6413	CCSQRH180J50
C6414	CCSQRH8R0D50
C6405	CCSQTH150J50
C6234, C6235	CEAL1R0M50
C6245	CEAL470M16
C6224	CEAT100M50
C6243	CEAT101M16
C6231	CEAT1R0M50
C6227	CEAT220M25
C6214, C6236	CEAT2R2M50
C6262	CEAT3R3M50
C6219	CEAT470M10
C6244	CEAT470M16
C6249, C6250, C6265, C6266	CEAT4R7M50
C6258	CEJA470M16
C6215	CFTLA103J50
C6211, C6254, C6403, C6417	CKSQYB102K50
C6201, C6205, C6210, C6237, C6276	CKSQYB103K50
C6278, C6280, C6281, C6402, C6409	CKSQYB103K50
C6418	CKSQYB103K50
C6251, C6252	CKSQYB153K50
C6203, C6259	CKSQYB223K50
C6228	CKSQYB472K50
C6209	CKSQYB473K50
C6230	CKSQYB821K50
C6218, C6223, C6255	CKSQYF103Z50
C6220, C6226, C6242, C6256	CKSQYF223Z50
C6225	CKSQYF473Z50

Mark	No.	Description	Part No.

RESISTORS

	R6280		RD1/4PU101J
	R6413, R6416, R6418, R6906, R6909		RS1/8S0R0J
	R6401		RS1/8S470J
	VR6201	(10kΩ)	PCP1029
	Other Resistors		RS1/10S□□□ J

OTHERS

	BN6202	(4P ANTENA TERMINAL)	AKE7051
	X6202	(456 kHz)	ASS1066
	X6201	(7.2000 MHz)	ASS1093
	CN6201	(14P SOCKET)	KP200IA14L

E AF ASSY

SEMICONDUCTORS

	IC3001		LC75396NE
	IC7301		NJM062M
	IC3002		NJM4558MD
	IC141		NJM7805FA
	IC131		NJM7812FA
	Q3004		2SC2412K
	Q3001, Q3002, Q3005, Q3006		2SD2114K
	Q3009, Q3010		2SD2114K
	Q2001		2SD2395
	Q3003		DTA124EK
	Q3011, Q3013, Q3015		DTA143EK
	Q7301		DTC114EK
	Q3014		DTC124EK
	D3006, D3007, D7301–D7304		1SS133
	D3011, D3016		1SS355
	D3004		MTZJ11C
	D3008, D3009		S5688G

COILS AND FILTERS

	L7301		LAU220J
	L3110		VTL1096
	L3101, L3103		VTL1105

CAPACITORS

	C3039, C3040, C3057–C3059		CCSQCH101J50
	C3203, C3204, C3207, C3208		CCSQCH101J50
	C3205, C3206		CCSQCH271J50
	C3011, C3012, C3025, C3026		CEAT100M50
	C3029, C3030		CEAT100M50
	C131, C141, C3041, C3042		CEAT1R0M50
	C3031		CEAT220M50
	C3001–C3008, C3013, C3014		CEAT2R2M50
	C3023, C3024, C3035, C3036		CEAT2R2M50
	C3055, C3056		CEAT2R2M50
	C133, C143, C3096, C7302		CEAT470M16
	C7304		CEJA4R7M50
	C3015, C3016		CFTYA474J50
	C3110, C3202		CKSQYB103K50
	C7301		CKSQYB221K50
	C3121–C3123		CKSQYB223K50
	C3047, C3048		CKSQYB473K50
	C3019, C3020		CKSQYB562K50
	C3021, C3022		CKSQYB681K50
	C3032		CKSQYB682K50
	C132, C142, C3017, C3018, C3044		CKSQYF104Z50
	C3099, C7305		CKSQYF104Z50
	C3045, C3046		CKSQYF684Z16

RESISTORS

	R2002		RD1/4PMF100J
	Other Resistors		RS1/10S□□□ J

OTHERS

	CN5	(23P FFC CONNECTOR)	52045-2345
	CN2	(8P JUMPER CONNECTOR)	52147-0810
	CN1	(12P JUMPER CONNECTOR)	52147-1210
	CN7	(3P CONNECTOR)	B3B-PH-K-S
	CN31	(10P PLUG)	KM200IB10
	CN32	(12P PLUG)	KM200IB12
	CN3	(9P JUMPER CONNECTOR)	KPE9

F CD ASSY

SEMICONDUCTORS

	IC1301		BA5970FP
	IC1101		CXA1821M
	IC1201		CXD2587Q
	Q7002, Q7004		2SA1037K
	Q1101		2SA854S
	Q7005–Q7008		2SD1858X
	Q1401, Q1402		2SD2114K
	Q1201, Q1403, Q1404		DTA124EK
	Q1202		DTC114TK
	Q7001, Q7003		DTC124EK
	D1101, D1202, D7003–D7006		1SS133
	D1201		1SS85
	D1401, D1402		DAN202K
	D7002		MTZJ3.6B
	D7001		MTZJ6.2C

COILS AND FILTERS

	L1101, L1102, L1201, L1231, L1232		LAU100J
	L1401, L1601		LAU100J
	L7001		LFA100J
	L1402, L1602		VTL1105

CAPACITORS

	C1201, C1202		CCSQCH150J50
	C1401, C1402		CCSQCH151J50
	C1107		CCSQCH220J50
	C1239, C1246, C1247		CCSQCH221J50
	C1604		CCSQCH270J50
	C1280		CCSQCH331J50
	C1322, C1324		CCSQCH681J50
	C1403, C1404		CCSQSL681J50
	C1102, C1104, C1203, C1233, C1240		CEJA101M10
	C1242, C1249, C1411, C1602		CEJA101M10
	C1301, C1307, C1308, C7003		CEJA101M16
	C1405, C1406		CEJA2R2M50
	C1109, C1110		CEJA330M25
	C1238		CEJAR47M50
	C1331		CKSQYB102K50

Mark	No.	Description	Part No.
	C1204–C1206, C1237, C1253, C1271		CKSQYB103K50
	C1416, C1605		CKSQYB103K50
	C1245		CKSQYB104K25
	C1236		CKSQYB152K50
	C1231		CKSQYB332K50
	C1341, C1342		CKSQYB333K50
	C1235, C1321, C1323		CKSQYB473K50
	C1311, C1312		CKSQYB681K50
	C1332		CKSQYB682K50
	C1101, C1103, C1108, C1111, C1232		CKSQYF103Z50
	C1234, C1241, C1250, C1251, C1276		CKSQYF103Z50
	C1302–C1306, C1413, C1414, C1417		CKSQYF103Z50
	C1601, C1603		CKSQYF103Z50
	C7001, C7002		CKSQYF104Z50
RESISTORS			
	R7003		RD1/4PU181J
	R7007		RD1/4PU221J
	R7006		RD1/4PU331J
	R7005		RD1/4PU470J
	Other Resistors		RS1/10S□□□ J
OTHERS			
	111	(3P CABLE HOLDER)	51048-0300
	101	(12P CABLE HOLDER)	51048-1200
	CN110	(17P FFC CONNECTOR)	52044-1745
	CN1101	(16P FFC CONNECTOR)	52089-1620
	J111	(3P FLAT CABLE)	D20PYY0310E
	J101	(12P FLAT CABLE)	D20PYY1215E
	CN1301	(6P CONNECTOR)	S6B-ZR
	1001, 1002	(PCB BINDER)	VEF1040
	X1201	(16.9344MHz)	PSS1008

K FRONT PANEL ASSY

SEMICONDUCTORS			
	Q5901		DTA143EK
	Q5902, Q5903		DTC124EK
	D5902, D5903		1SS133
	D5908		1SS355
	D5901		MTZJ5.6B
	D5907		SLR-343VC
SWITCHES AND RELAYS			
	S5916		ASX7026
	S5901–S5915, S5917–S5923		XSG3001
CAPACITORS			
	C5902		CEJA101M10
	C5903		CKSQYF103Z50
RESISTORS			
	R5917		RD1/2PM471J
	R5909		RD1/2PM820J
	Other Resistors		RS1/10S□□□ J
OTHERS			
	154, 155	(3P CABLE HOLDER)	51048-0300
	CN150	(17P FFC CONNECTOR)	52044-1745
	CN51	(3P JUMPER CONNECTOR)	52147-0310
	J54	(3P FLAT CABLE)	D20PYY0310E
	J55	(3P FLAT CABLE)	D20PYY0330E
	5901	(REMOTE RECEIVER UNIT)	GP1U27X

Mark	No.	Description	Part No.

I F-TERMINAL ASSY

SEMICONDUCTORS			
	D7211, D7212		1SS355
COILS AND FILTERS			
	L7202, L7203, L7211, L7212		VTL1096
	L7221, L7222		VTL1096
CAPACITORS			
	C7202		CEJA101M10
	C7213, C7214, C7223, C7224		CKSQYB102K50
	C7201, C7203		CKSQYB103K50
	C7231		CKSQYB472K50
RESISTORS			
	Other Resistors		RS1/10S□□□ J
OTHERS			
	103	(9P CABLE HOLDER)	51063-0905
	7304	(MINE JACK)	AKN-210
	7303	(MINI JACK)	AKN7003
	J103	(JUMPER WIRE)	D15A09-350-2651
	JA7201	(OPTICAL LINK OUT)	GP1F32T

H R-TERMINAL ASSY

COILS AND FILTERS			
	L7101–L7106, L7111		VTL1096
CAPACITORS			
	C7102, C7104		CCSQCH221J50
	C7154		CKSQYB102K50
	C7131		CKSQYB103K50
RESISTORS			
	Other Resistors		RS1/10S□□□ J
OTHERS			
	JA7105	(2P PIN JACK)	AKB7043
	CN7104	(4P PIN JACK)	AKB7114
	CN7102	(5P SOCKET)	AKP7042
	CN7101	(10P SOCKET)	AKP7048
	CN131	(10P SOCKET)	KP200IB10L
	CN132	(12P SOCKET)	KP200IB12L

G CD MOTOR ASSY

CAPACITORS			
	C7501		CKSQYF104Z50
OTHERS			
	CN11	(3P JUMPER CONNECTOR)	52151-0310

M CD OPEN SW ASSY

SWITCHES AND RELAYS			
	S7401, S7402		VSH1019
OTHERS			
	54	(3P CABLE HOLDER)	51048-0300

Mark	No.	Description	Part No.
N		**CD CLOSE SW ASSY**	
		SWITCHES AND RELAYS	
	S7403, S7404		ASG7015
		OTHERS	
	55	(3P CABLE HOLDER)	51048-0300
L		**LIGHT-L ASSY**	
		SEMICONDUCTORS	
	D5971		NSPBF50S-8451
		OTHERS	
	51	(3P CABLE HOLDER)	51048-0300
	J51	(3P CABLE HOLDER)	D20PYY0310E
D		**LCD ASSY**	
		OTHERS	
	CN190	(15P FFC CONNECTOR)	52045-1545
	CN180	(29P FFC CONNECTOR)	52045-2945
	V5501	(LCD DISPLAY)	AAV7066
B		**TX CONNECT ASSY**	
		CAPACITORS	
	C9999		CKSQYB104K25
		OTHERS	
	160	(13P CABLE HOLDER)	51048-1300
	CN161	(14P CONNECTOR)	9176B-14L
C		**U-COM ASSY**	
		SEMICONDUCTORS	
	IC5501		PDG242B
	IC5503		PDG243A
	Q5701		2SA1037K
	Q5501		2SC2412K
	Q5502		DTA124EK
	Q5702		DTC124EK
	Q5503, Q5511, Q5512		DTC143EK
	D5501, D5503–D5505, D5701		1SS133
	D5502, D5506, D5507		MTZJ6.8B
		COILS AND FILTERS	
	L5501, L5502, L5509, L5510		LAU220J
	L5503–L5508		VTL1105
		CAPACITORS	
	C5507	(0.047F/5.5V)	ACH1246
	C5520–C5522		CCSQCH101J50
	C5533, C5534		CCSQCH220J50
	C5556–C5558		CCSQCH680J50
	C5509		CEAT100M50
	C5502		CEAT1R0M50
	C5505, C5508		CEAT470M16
	C5501		CEATR47M50
	C5503, C5537–C5539, C5541, C5547		CKSQYB102K50
	C5555		CKSQYB102K50
	C5528, C5529, C5531, C5545, C5546		CKSQYB103K50
	C5524–C5526		CKSQYB104K25
	C5504, C5506, C5510, C5511, C5523		CKSQYF104Z50
	C5532, C5535, C5536, C5542		CKSQYF104Z50
		RESISTORS	
	R5577–R5580		RD1/4PU471J
	Other Resistors		RS1/10S□□□ J
		OTHERS	
	60	(13P CABLE HOLDER)	51048-1300
	CN10	(17P FFC CONNECTOR)	52044-1745
	CN105	(23P FFC CONNECTOR)	52044-2345
	CN90	(15P FFC CONNECTOR)	52045-1545
	CN50	(17P FFC CONNECTOR)	52045-1745
	X5501	(12MHz)	ASS1062
	X5502	(10MHz)	DSS1048
	CN80	(29P FFC CONNECTOR)	52045-2945
	CN20	(14P JUMPER CONNECTOR)	52147-1410
		(BUZZER)	APV7002
	J60	(13P FLAT CABLE)	D20PYY1315E
	10, 20	(PCB BINDER)	VEF1040
	KN5501	(EARTH METAL FITTING)	VNF1084
J		**DECK ASSY**	
		SEMICONDUCTORS	
	IC2601		BU4094BCF
	IC2201		HA12136AF
	IC2202,IC2301,IC2401		NJM4558MD
	Q2709		2SB1197K
	Q2803		2SB1238X
	Q2708		2SB1296
	Q2801, Q2802, Q2805		2SC1815
	Q2806		2SC2240
	Q2253		2SC2412K
	Q2701–Q2704		2SD1858X
	Q2251, Q2252, Q2261, Q2262		2SD2114K
	Q2451, Q2452		2SD2114K
	Q2301, Q2302		2SK373
	Q2254, Q2711		DTA124EK
	Q2705, Q2706		DTA143EK
	Q2303–Q2306, Q2401, Q2402		DTC114TK
	Q2201, Q2263, Q2351, Q2804		DTC124EK
	Q2601–Q2603, Q2707, Q2710		DTC143EK
	D2252–D2256, D2301–D2306, D2311		1SS133
	D2421, D2705, D2706		1SS133
	D2709		MTZJ4.7B
	D2201, D2703, D2704		MTZJ6.2B
		COILS AND FILTERS	
	L2802		LFA121J
	L2801		RTD1082
	L2401, L2402		RTF1004
	L2403, L2404		RTF1021
	F2201, F2202		RTF1217
	L2501, L2502		VTL1096

Mark	No.	Description	Part No.
CAPACITORS			
	C2809		CCCSL151K2H
	C2301, C2302		CCSQCH100D50
	C2423, C2424		CCSQCH221J50
	C2253		CCSQCH271J50
	C2303, C2304		CCSQCH681J50
	C2203, C2204, C2207, C2215		CEAT100M50
	C2311, C2312, C2407, C2408		CEAT100M50
	C2701		CEAT101M16
	C2201, C2202, C2217, C2218, C2255		CEAT1R0M50
	C2403, C2404		CEAT1R0M50
	C2251		CEAT220M50
	C2216		CEAT221M10
	C2213, C2214, C2254		CEAT2R2M50
	C2309, C2310, C2805, C2806, C2810		CEAT330M16
	C2314, C2425, C2807		CEAT470M16
	C2221, C2222, C2261, C2262		CEAT4R7M50
	C2419, C2420		CEAT4R7M50
	C2205, C2206		CEATR22M50
	C2501, C2502		CKSQYB102K50
	C2601		CKSQYB104K25
	C2252		CKSQYB105K10
	C2411, C2412		CKSQYB122K50
	C2211, C2212, C2421, C2422		CKSQYB152K50
	C2602		CKSQYB221K50
	C2401, C2402		CKSQYB332K50
	C2451		CKSQYB473K50
	C2702		CKSQYB474K16
	C2808		CQHA822J2A
	C2209, C2210		CQMA103J50
	C2801		CQMA123J50
	C2409, C2410		CQMA223J50
	C2803, C2804		CQMA332J50
	C2417, C2418		CQMA393J50
	C2307, C2308, C2802		CQMA682J50
	C2405, C2406		CQMA683J50
RESISTORS			
	R2805		RD1/2PM161J
	R2806		RD1/2PM201J
	R2703–R2706		RD1/2PM391J
	R2803		RD1/2PM4R7J
	R2701, R2702		RD1/4PU102J
	R2707		RD1/4PU751J
	VR2701	(1kΩ)	PCP1024
	VR2301,VR2302	(4.7kΩ)	PCP1028
	VR2401,VR2402	(22kΩ)	PCP1030
	VR2801,VR2802	(100kΩ)	PCP1032
	Other Resistors		RS1/10S□□□ J
OTHERS			
	102	(8P CABLE HOLDER)	51048-0800
	CN2701	(13P CONNECTOR)	B13B-PH-K-S
	CN2302	(2P CONNECTOR)	B2B-PH-K-S
	CN2301	(4P CONNECTOR)	B4B-PH-K-S
	CN2603	(5P CONNECTOR)	B5B-PH-K-S
	J2201	(8P FLAT CABLE)	D20PYY0825E
	J2202	(14P FLAT CABLE)	D20PYY1425E
		(BINDER)	VEF1040

6. ADJUSTMENT

For adjustment, use the stereo power amplifier (M-IS21).

6.1 DECK SECTION

6.1.1 Adjustment Condition

(1) The ground at the time of adjustment shall be W166. (Refer to Fig. 6–3).
(2) Clean the heads and demagnetize them using a head eraser.
(3) Set the measurement level to 0 dBV = 1 Vrms.
(4) Use the specified tape for adjustment. Use the labeled (A) side of the test tape.
NCT–111 : For Tape Speed adjustment
STD-331E : For Playback adjustment
STD–632 : Normal blank tape

* As the reference recording level is 250 nwb/m for STD–331E, the recording level will be higher by 4 dB for STD–331B (160nwb/m). When adjusting, pay carefull attention to the type of tape used.

(5) Provide yourself with the following measuring devides:
- AC millivoltmeter
- Low-frequency oscillator
- Attenuator
- Oscilloscope

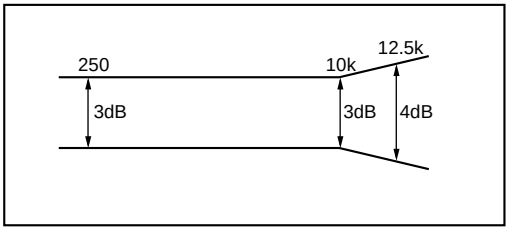
(6) Adjust both right and left channels unless otherwise specified.
(7) Turn the DOLBY NR switch off unless otherwize specified.
(8) Warm up the unit for several minutes before adjustment. In particular, be sure to warm up the unit in the REC/PLAY mode for 3 to 5 minutes before starting recording/playback frequency characteristics adjustment.
(9) Always follow the indicated adjustment order. Otherwise, a complete adjustment may not be achieved.

■ List of Adjustments

● Playback Section
(1) Tape Speed Confirmation
(2) Head Azimuth Adjustment
(3) Playback Level Adjustment

● Recording Section
(1) Recording Bias Adjustment
(2) Recording Level Adjustment

PLAY BACK



RECORDING

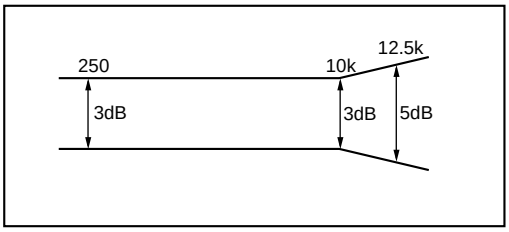


Fig. 6-1 Frequency Characteristics

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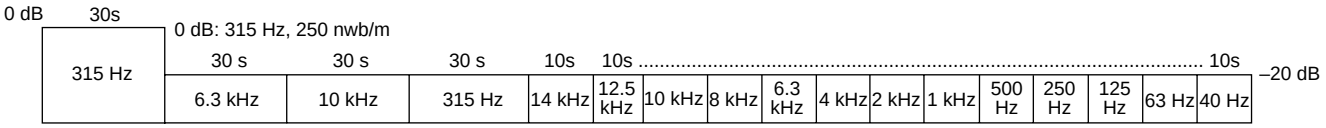


Fig. 6-2 Test Tape STD– 331E

6.1.2 Playback Section

(1) Tape Speed Confirmation

No.	Mode	Input Signal/Test Tape	Adjustment Points	Measurement Points	Adjustment Value	Remarks
1	PLAY	NCT-111 (3 kHz)	VR2701 (DECK ASSY) (Refer to Fig. 6-3)	TP R (C2204) (DECK ASSY)	3000 Hz $^{+10}_{-10}$ Hz	FWD adjustment REV Confirmation (3000 Hz $^{+60}_{-60}$ Hz)

(2) Head Azimuth Adjustment

- This unit is equipped with auto tape selector.
- Do not switch between forward and reverse operation with the screwdriver inserted.

No.	Mode	Input Signal/Test Tape	Adjustment Points	Measurement Points	Adjustment Value	Remarks
1	PLAY	STD-331E test tape (Playback: 10 kHz, –20 dB)	Head azimuth adjustment Screw (Refer to Fig. 6-3)	TP L (C2203) TP R (C2204) (DECK ASSY)	Max. Playback signal level	After adjustment, apply silicon bond to the head azimuth adjustment screw.

(3) Playback Level Adjustment

- Since this adjustment determines playback DolbyNR level, Perform it carefully.

No.	Mode	Input Signal/Test Tape	Adjustment Points		Measurement Points	Adjustment Value	Remarks
1	PLAY	STD-331E test tape (Playback: 315 Hz, 0 dB)	L ch	VR2301	TP L (C2203) TP R (C2204) (DECK ASSY)	–3.7 dBV	
			R ch	VR2302			

6.1.3 Recording Section

(1) Recording Bias Adjustment

- After the adjustment, caution should be exercised so as not to become under bias by checking the distortion rate.

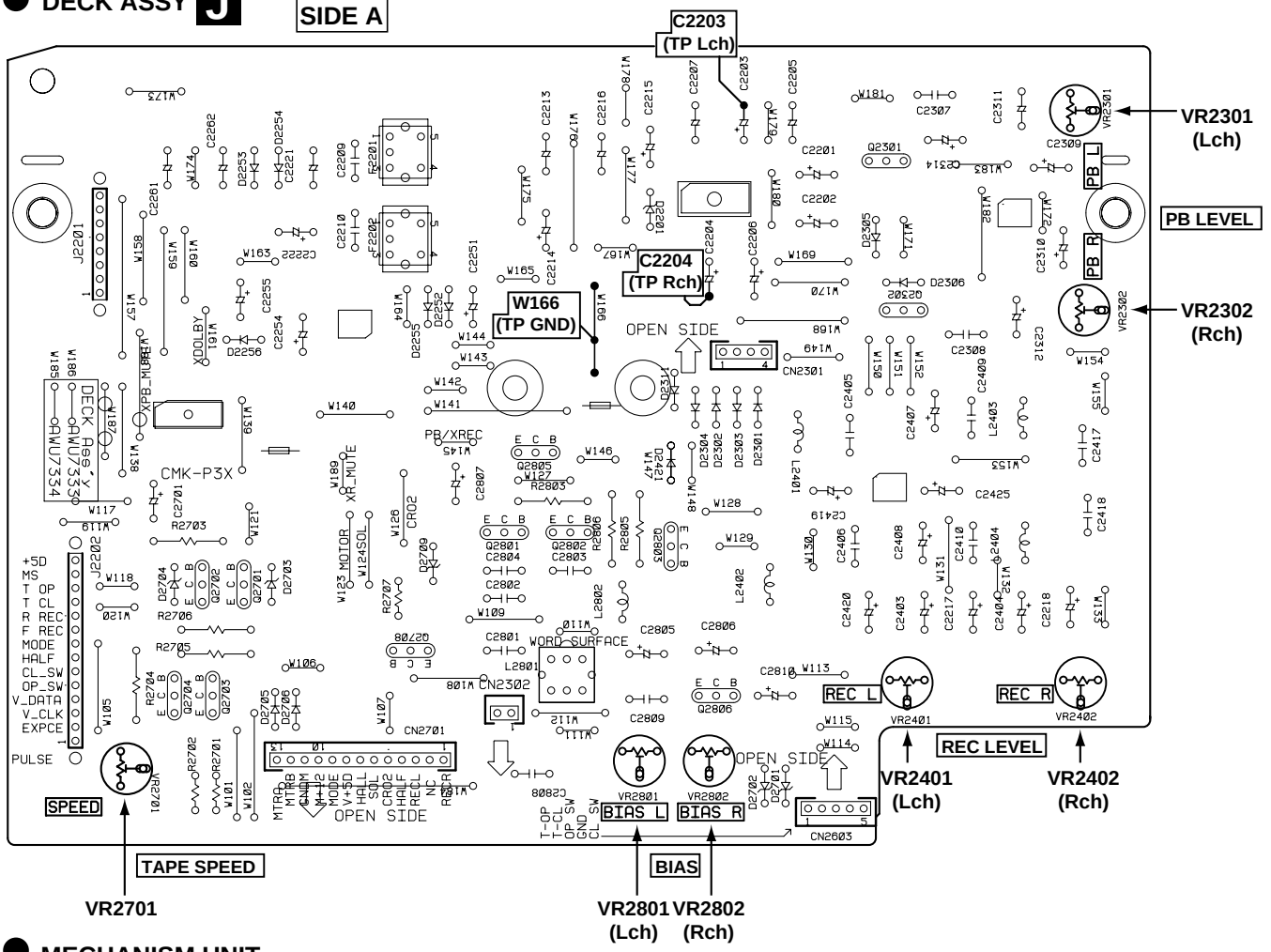
No.	Mode	Input Signal/Test Tape	Adjustment Points		Measurement Points	Adjustment Value	Remarks
1	REC/ PAUSE	Input a 315Hz signal to the LINE - IN terminal. *	Input signal level		TP L (C2203) TP R (C2204) (DECK ASSY)	–23.7 dBV	
2	REC → PLAY	Load the STD–632 test tape and record/playback the 315Hz and 10kHz signals. (see the Note below)	L ch	VR2801		Repeat adjustment until playback level of the 10kHz signal is within 0.5dBV ±0.5dB from that of the 315Hz signal.	
			R ch	VR2802			

Note: Set the 10kHz input signal level to the same value as the 315Hz input signal level of step 1.

(2) Recording Level Adjustment

No.	Mode	Input Signal/Test Tape	Adjustment Points		Measurement Points	Adjustment Value	Remarks
1	REC/ PAUSE	Input a 315Hz signal to the LINE- IN terminal.*	Input signal level		TP L (C2203) TP R (C2204) (DECK ASSY)	–7.7 dBV	
2	REC → PLAY	STD–632 test tape and record/ playback the 315Hz signal.	L ch	VR2401		Repeat recording, playback and adjustment until playback level of the 315Hz signal becomes –7.7dBV±0.5dB.	
			R ch	VR2402			

● **DECK ASSY** **J**



● **MECHANISM UNIT**

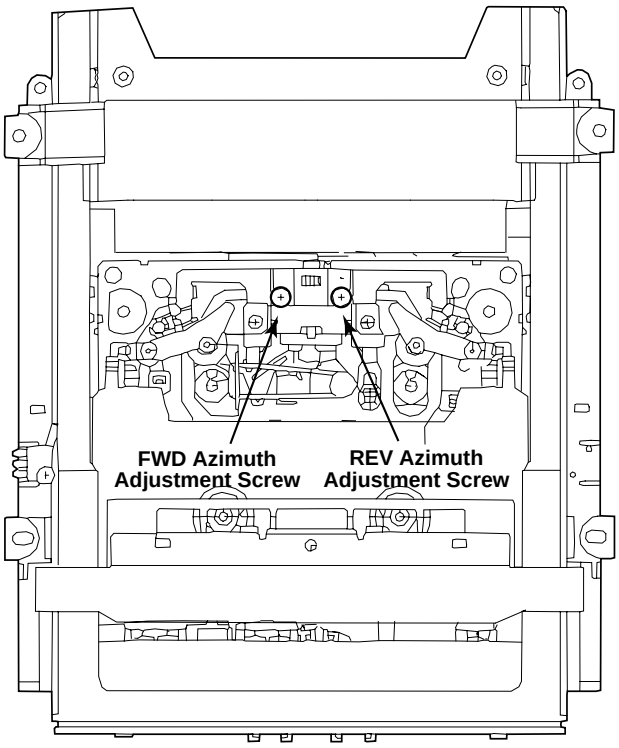


Fig. 6-3 Adjustment and Measurement Points

6.2 CD SECTION

Note : There is no information to be shown in this CD adjustment.

6.2.1 HOW TO START / CANCEL TEST MODE

TEST MODE : ON

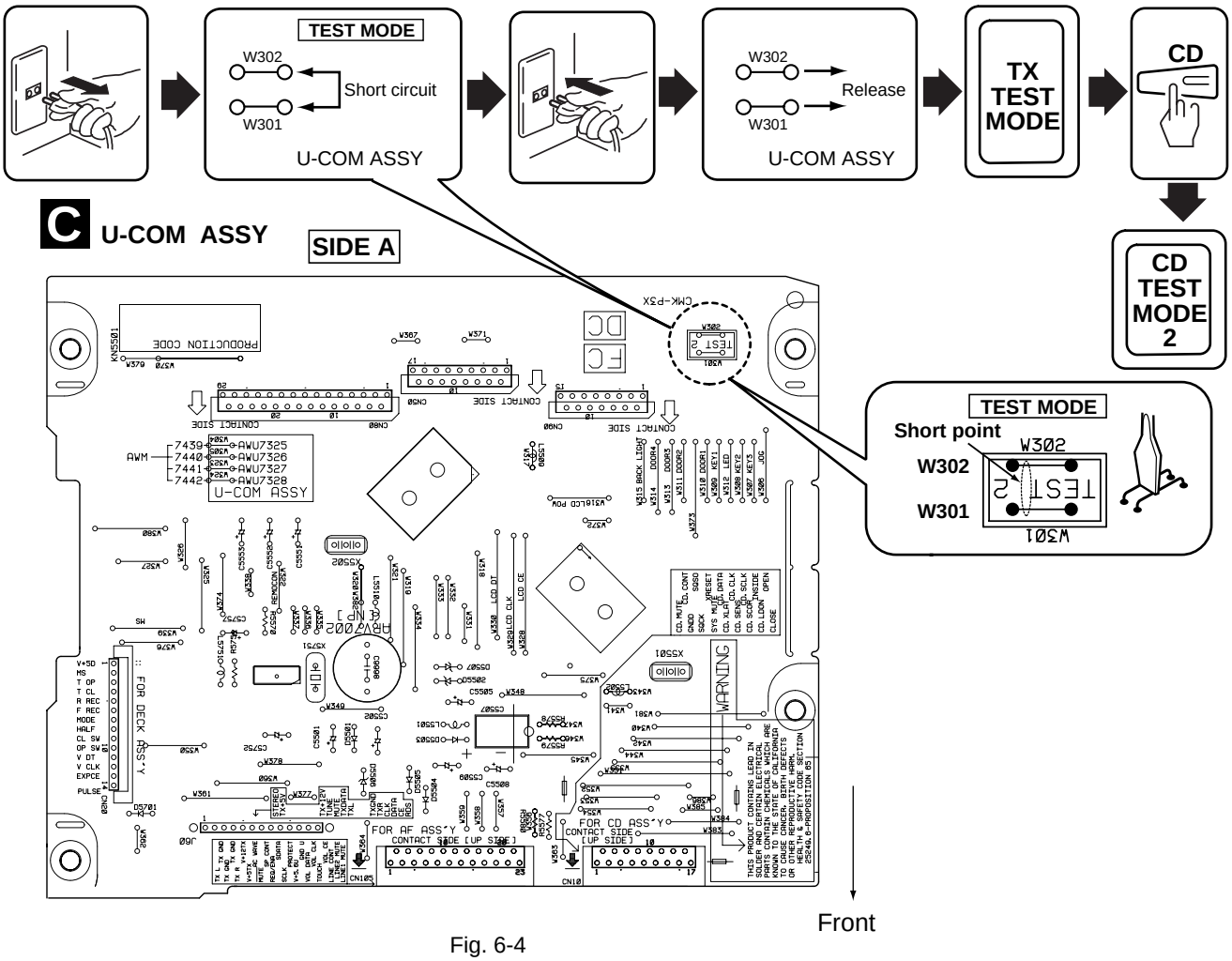
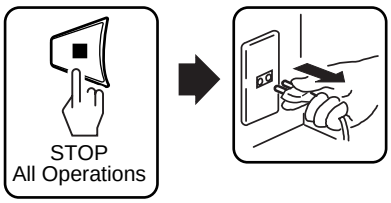
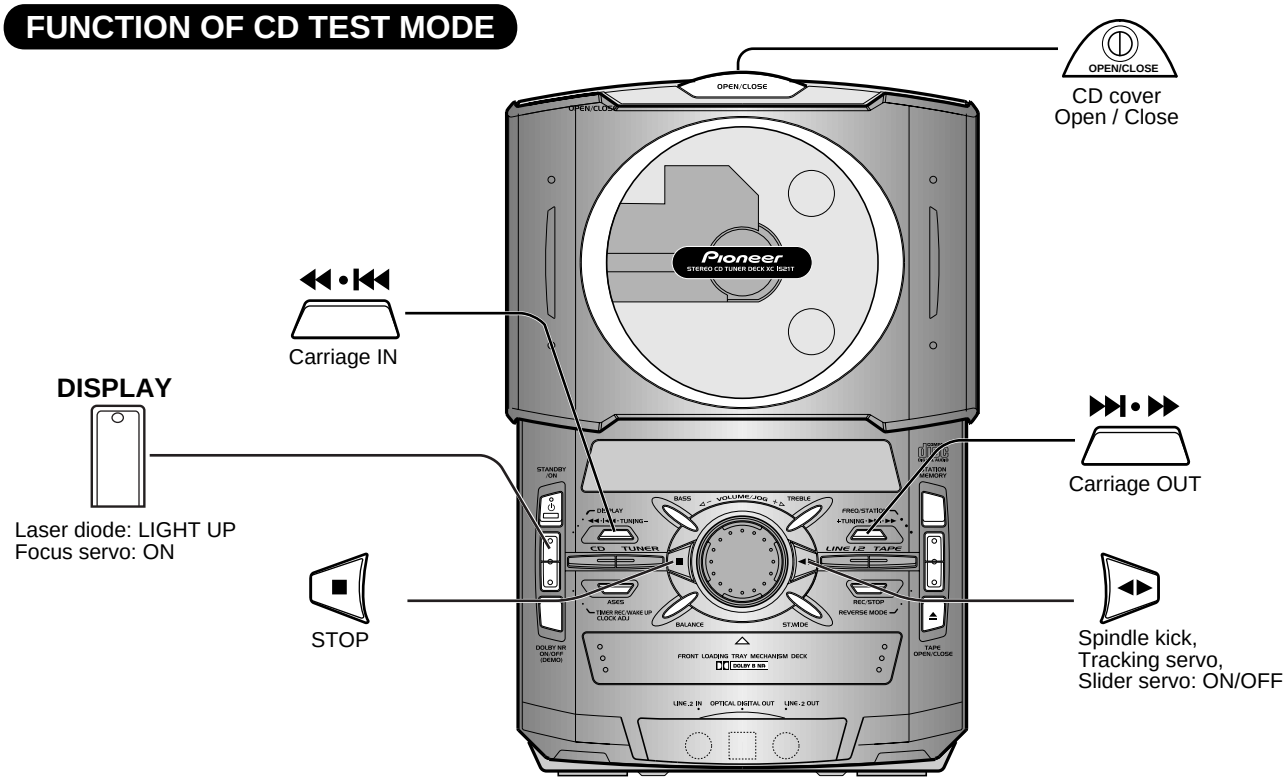


Fig. 6-4

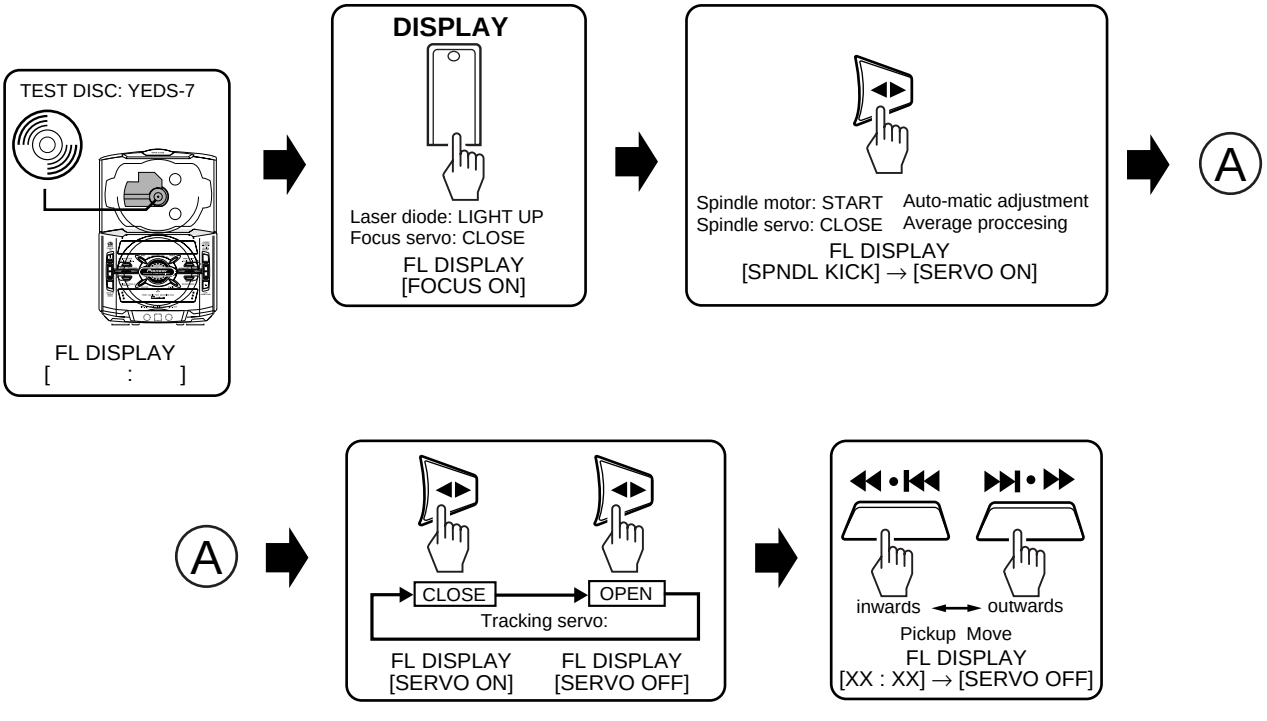
TEST MODE : STOP → CANCEL



FUNCTION OF CD TEST MODE



TEST MODE : PLAY



6.3 TUNER SECTION

6.3.1 FM TUNER SECTION

- Set the mode selector to FM BAND.
- Connect the wiring as shown in Fig. 6-5.

Step No.	Adjustment Title	FM SG (1kHz, ±75kHz dev.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (MHz)	Level (dBμV)			
1	Front End Sensitivity	98	0 – 30	98MHz	L6402 T6401	Adjust so that the DC voltage between the IC6201-Pin 20 and GND becomes at maximum level.
2	TUNED IND. Lighting Level	98	18 ± 2	98 MHz	VR6201	Adjust so that the indicator of TUNED IND. starts to light up.

Note: Before adjusting, make sure there is no gap between L6101 and L6102 . If there is a gap between them, bring them into contact with each other first, and then make adjustments.

6.3.2 AM TUNER SECTION

- Set the mode selector to AM BAND.
- Connect the wiring as shown in Fig. 6-5

Step No.	Adjustment Title	AM SG (400Hz, 30% Mod.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (kHz)	Level (dBμV/m)			
1	Front End Sensitivity	999*1	35 – 45	999 kHz*1	T6201	Adjust so that the DC voltage between the IC6201-Pin 20 and GND becomes at maximum level.

*1: For the area using 10 kHz step, frequencies should be 1000 kHz.

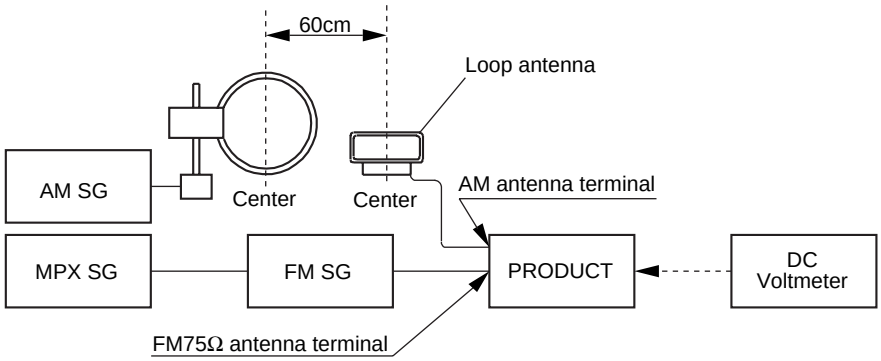


Fig. 6-5AM and FM Adjustment Wiring Diagram

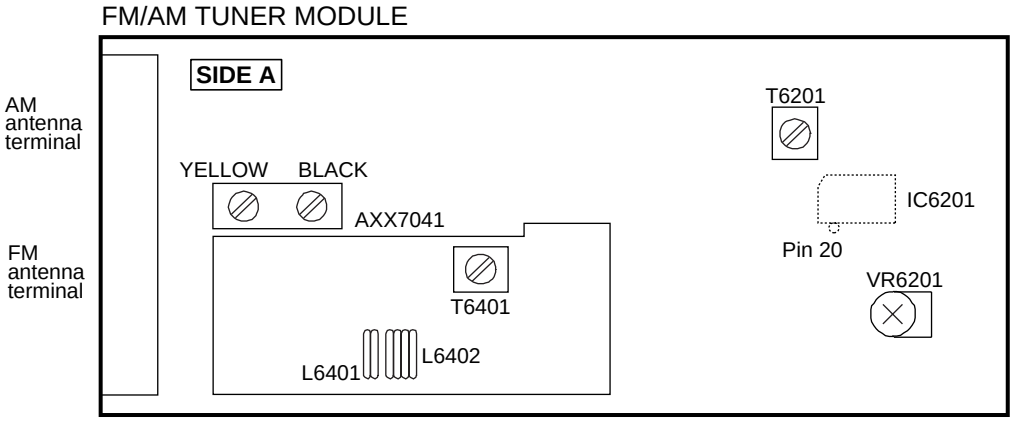


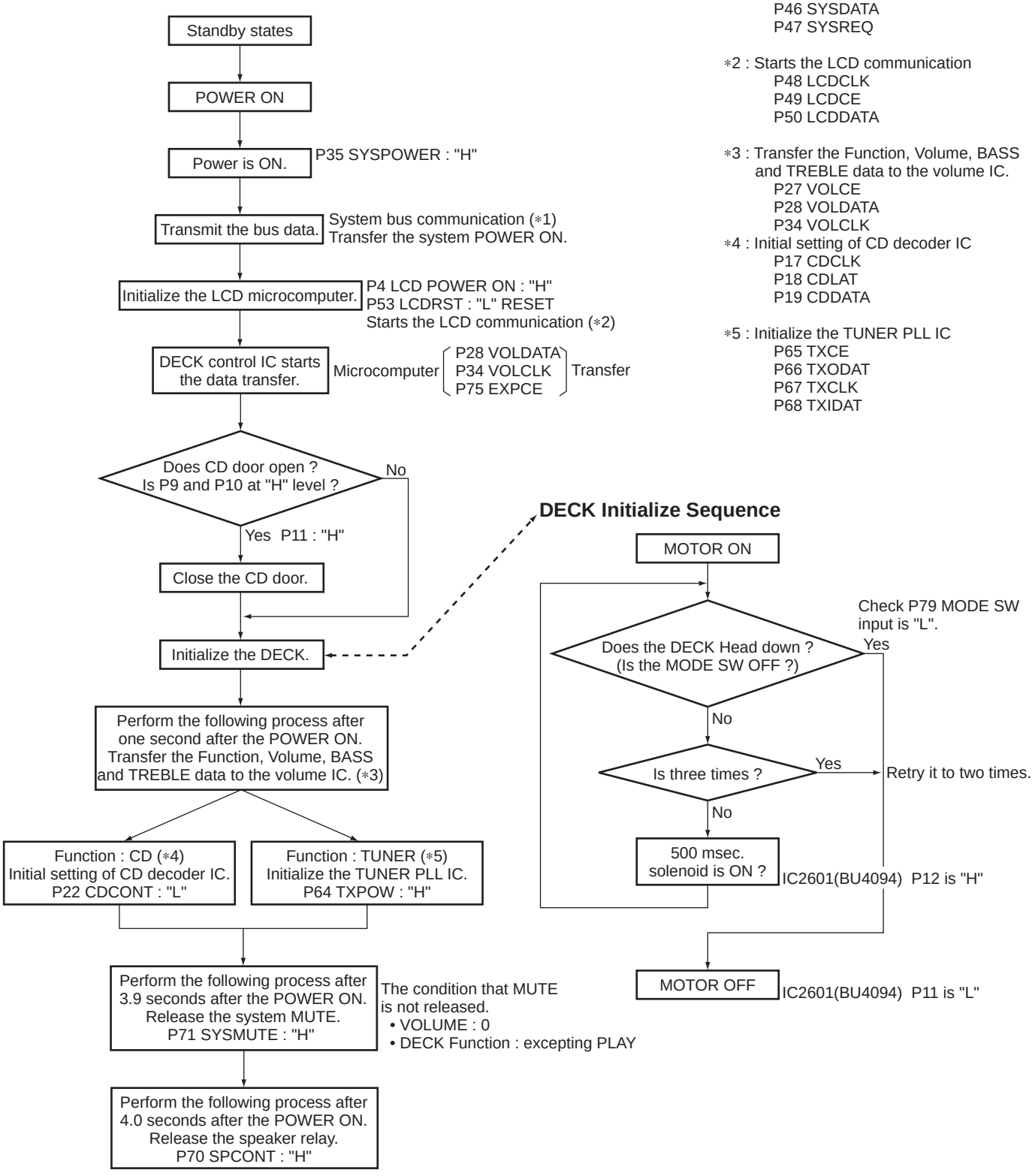
Fig. 6-6 Adjustment Point

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 SEQUNCE AFTER THE POWER ON

Note 1 : IC No. or P∗∗ without name indicate the pin No. of microcomputer.


Standby states
POWER ON
Power is ON.
P35 SYSPOWER : "H"
Transmit the bus data.
System bus communication (∗1)
Transfer the system POWER ON.
Initialize the LCD microcomputer.
P4 LCD POWER ON : "H"
P53 LCDRST : "L" RESET
Starts the LCD communication (∗2)
DECK control IC starts the data transfer.
Microcomputer
P28 VOLDATA
P34 VOLCLK
P75 EXPCE
Transfer
Does CD door open ?
Is P9 and P10 at "H" level ?
No
Yes P11 : "H"
Close the CD door.
Initialize the DECK.
Perform the following process after one second after the POWER ON.
Transfer the Function, Volume, BASS and TREBLE data to the volume IC. (∗3)
Function : CD (∗4)
Initial setting of CD decoder IC.
P22 CDCONT : "L"
Function : TUNER (∗5)
Initialize the TUNER PLL IC.
P64 TXPOW : "H"
Perform the following process after 3.9 seconds after the POWER ON.
Release the system MUTE.
P71 SYSMUTE : "H"
The condition that MUTE is not released.
• VOLUME : 0
• DECK Function : excepting PLAY
Perform the following process after 4.0 seconds after the POWER ON.
Release the speaker relay.
P70 SPCONT : "H"
DECK Initialize Sequence
MOTOR ON
Check P79 MODE SW input is "L".
Does the DECK Head down ?
(Is the MODE SW OFF ?)
Yes
No
Is three times ?
Yes
Retry it to two times.
No
500 msec. solenoid is ON ?
IC2601(BU4094) P12 is "H"
MOTOR OFF
IC2601(BU4094) P11 is "L"

Note ;

∗1 : System bus communication
- P29 SYSCLK
- P46 SYSDATA
- P47 SYSREQ

∗2 : Starts the LCD communication
- P48 LCDCLK
- P49 LCDCE
- P50 LCDDATA

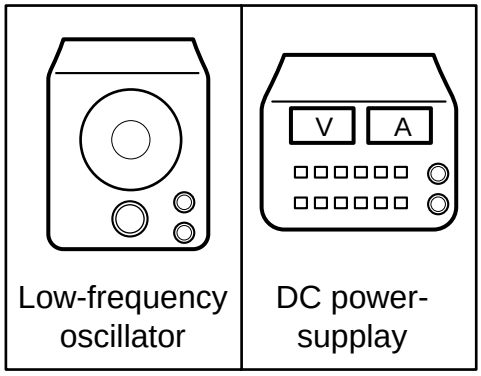
∗3 : Transfer the Function, Volume, BASS and TREBLE data to the volume IC.
- P27 VOLCE
- P28 VOLDATA
- P34 VOLCLK

∗4 : Initial setting of CD decoder IC
- P17 CDCLK
- P18 CDLAT
- P19 CDDATA

∗5 : Initialize the TUNER PLL IC
- P65 TXCE
- P66 TXODAT
- P67 TXCLK
- P68 TXIDAT

7.1.2 SINGLE OPERATION METHOD

■ Jigs and Measuring instruments



■ Single operation method and frequnency oscilator inputlevel.

1. Connect part Ⓐ of the AF ASSY [W420(+8V),W421 (+15V), W422 (+5.6V), W423(GND) and DC power-supplay. (Refer to Fig. 7-1.)

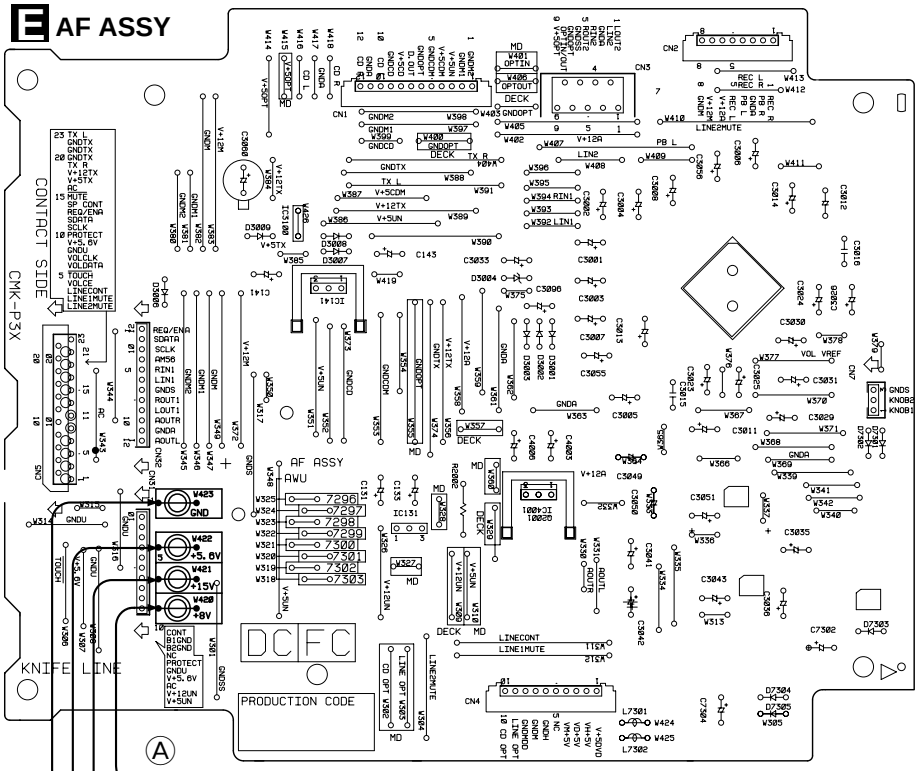
Connect point Ⓐ	DC power-supplay	
	Voltage (V)	Remarks
AF ASSY, W420 (+8v)	+8V	
AF ASSY, W421 (+15v)	+15V	
AF ASSY, W422 (+5.6v)	+5.6V	
AF ASSY, W423 (GND)	GND	

2. Connect part Ⓑ of the U-COM ASSY [CN105 pin8 (AC), AF ASSY[W423 (GND)] and frequency oscillator. (Refer to Fig. 7-1 and 7-2.)

Connect point Ⓑ	Low-frequency oscillator			
	frequency	level	Gnd	Remarks
U-COM ASSY, CN105 pin8 (AC)	50 or 60 Hz	Approx.2.0 Vrms	———	Note.
AF ASSY, W423 (GND)	———	———	osc GND	

Note: Set up the low-frequncy oscillator level with in the limits of product moves.

E AF ASSY



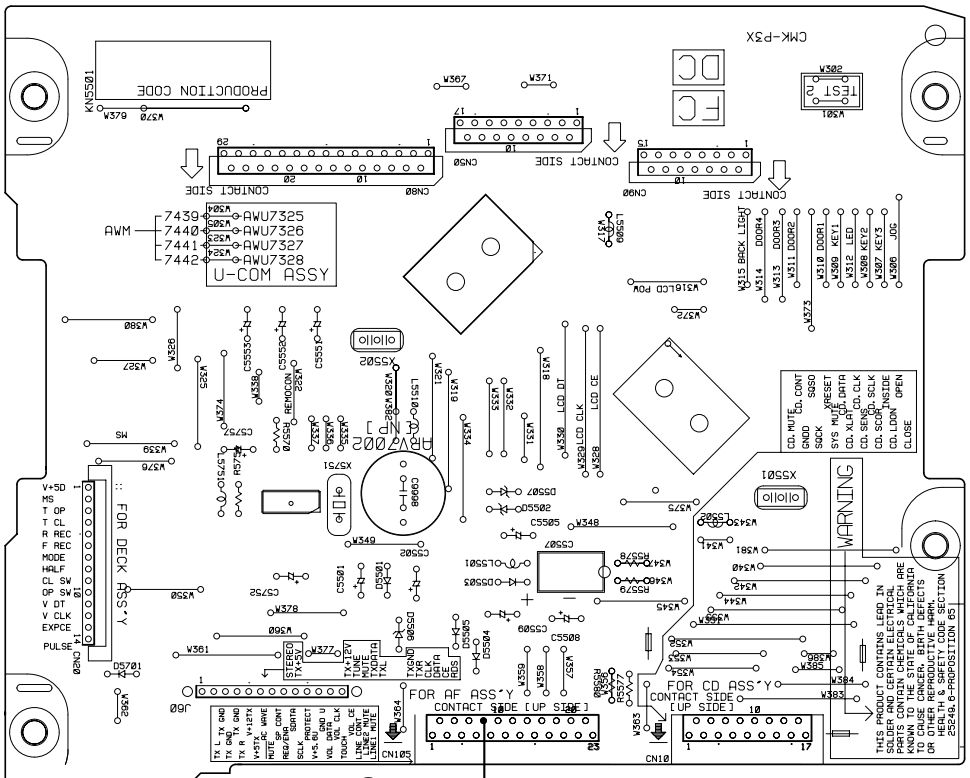
Ⓐ

W420.....+8V
W421.....+15V
W422.....+5.6V
W423.....GND

Fig. 7-1

SIDE A

C U-COM ASSY



Ⓑ

Frequency: 50 or 60Hz
Level: Approx. 2Vrms
GND **OSC** **CN105 pin8 (AC)**

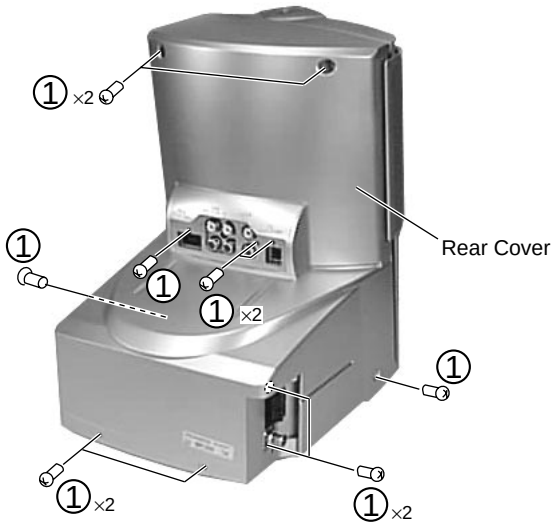
Fig. 7-2

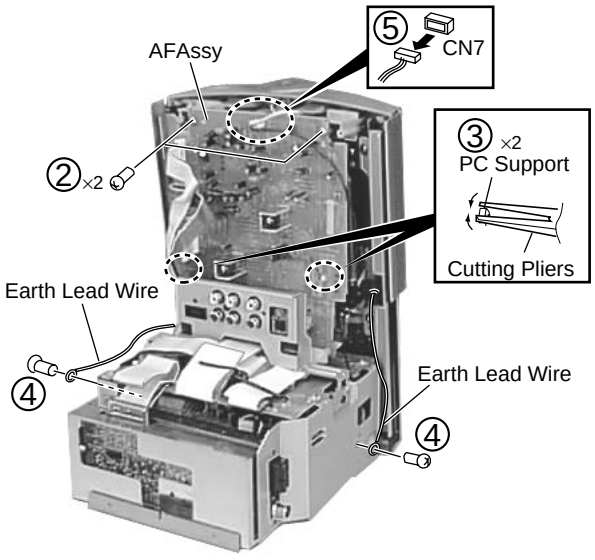
SIDE A

7.1.3 DISASSEMBLY

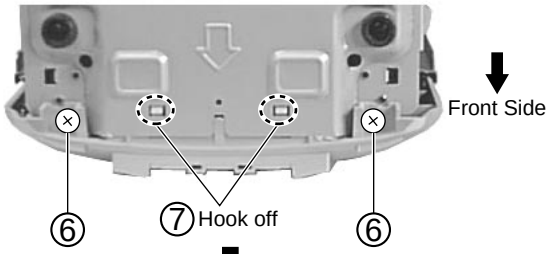
1 Front Panel Assy

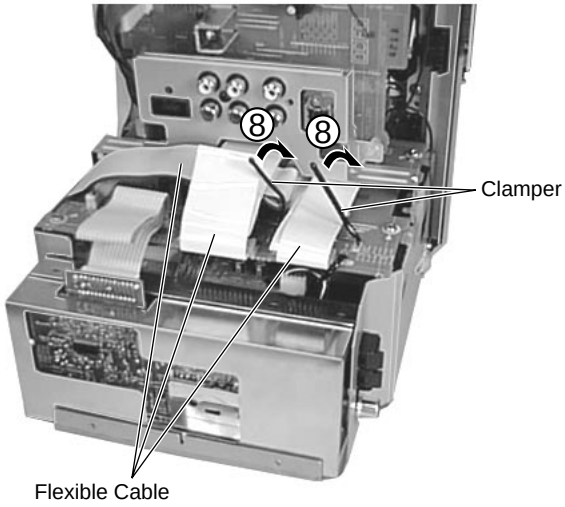
Note : Flexible cables are not removed in the case of the adjustment, but remove the Flexible cables to apply in the case of the exchange or repair.



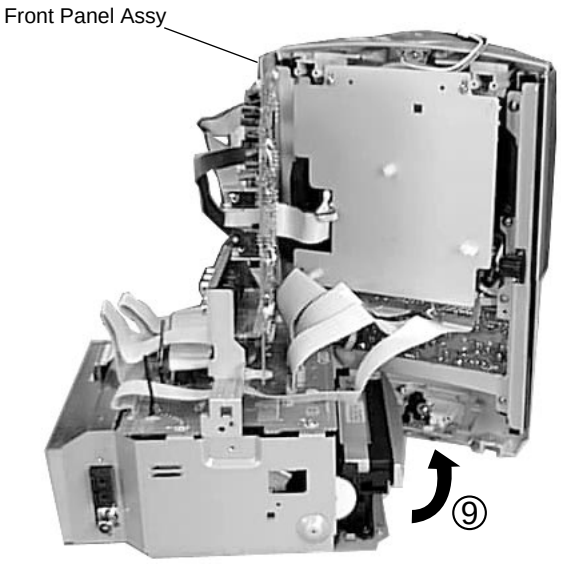


• Bottom View

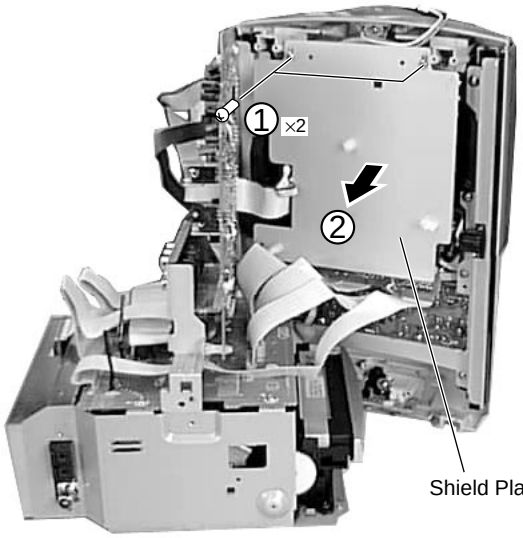


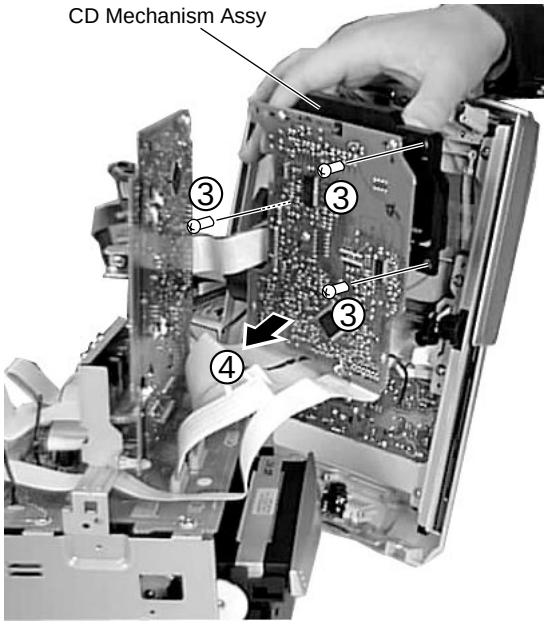


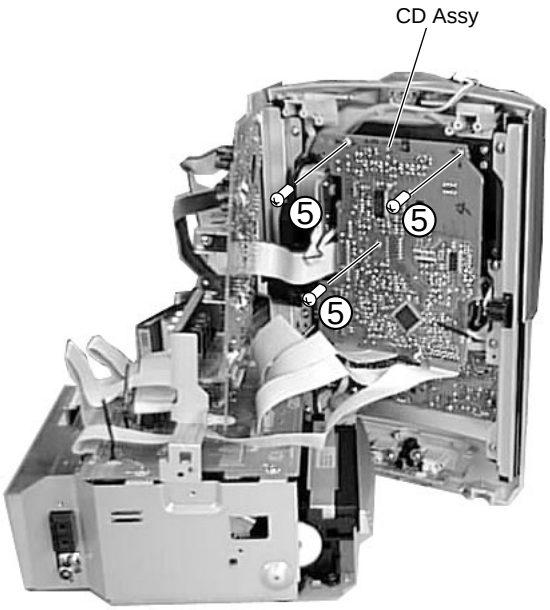
Caution : Style the Flexible Cables as before so that cables may not be put in the Rear Cover when assembling it.

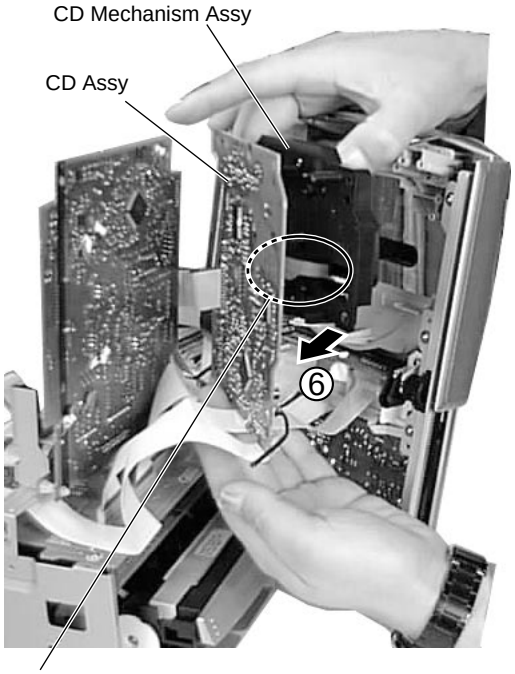


2 CD Mechanism Assy





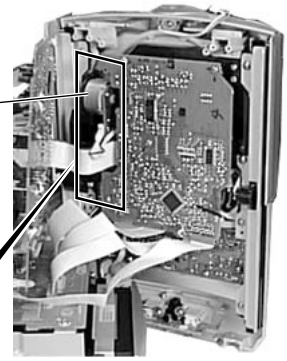


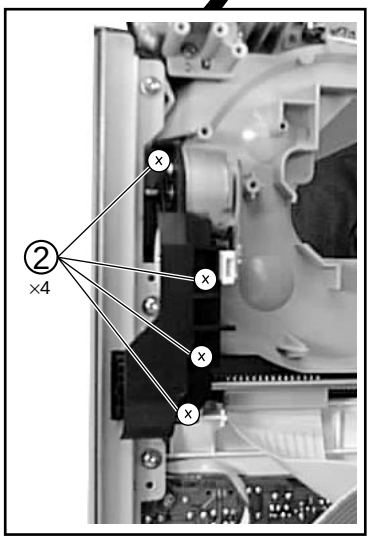


Caution : When the CD Assy is pulled out, it is careful of the breaking down of the Flexible Cable.

Exchange

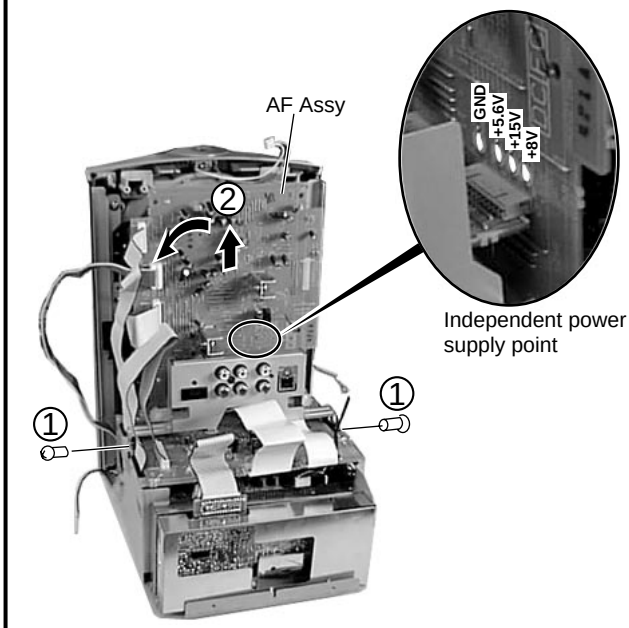
3 CD Door Drive Block

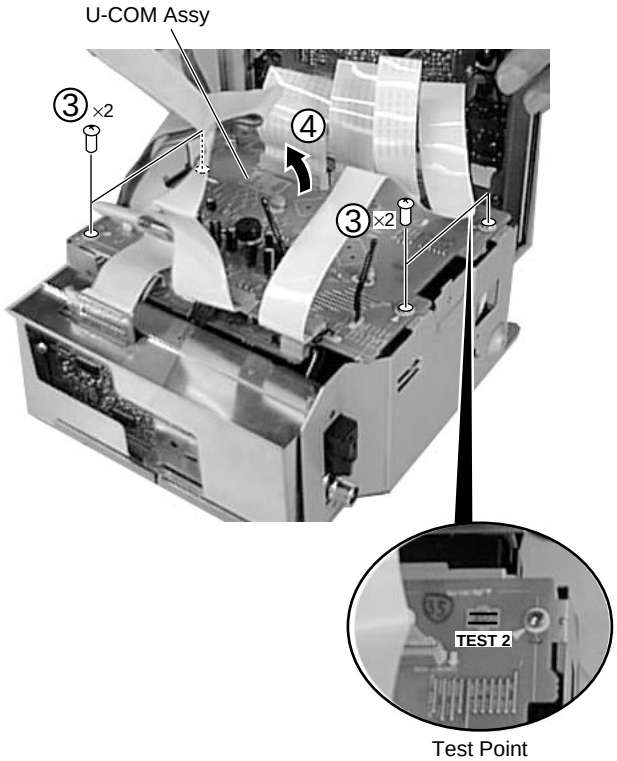


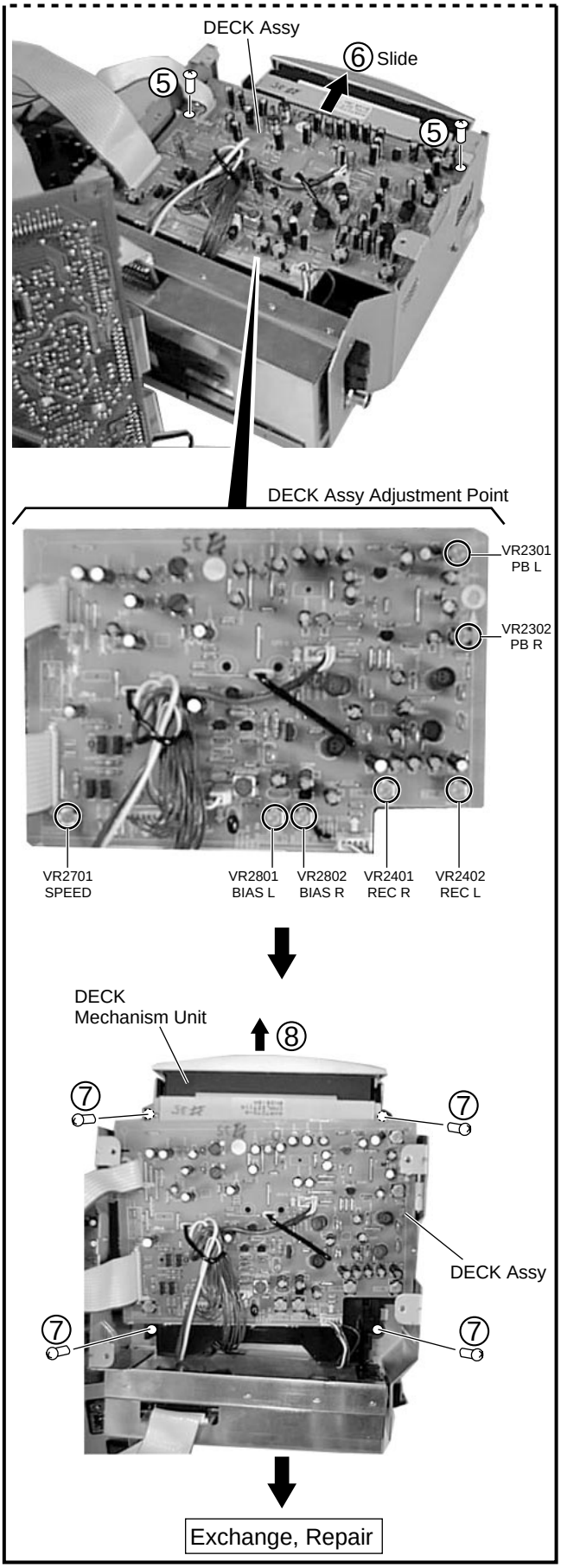


Exchange

4 Deck Mechanism Unit



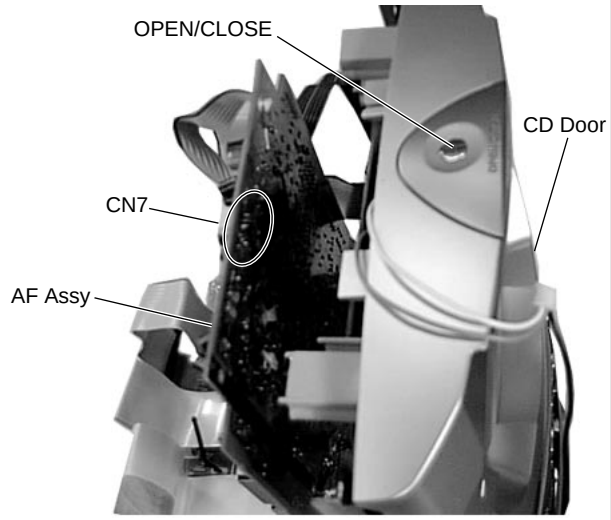




Note

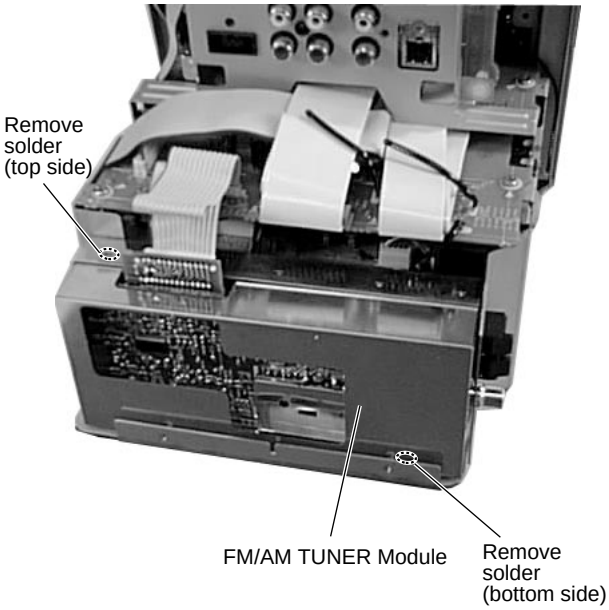
① **CD Door OPEN/CLOSE**

When a connector CN7 of AF Assy is removed for the touch sensor system, sensor does not work and CD Door can't open and close. CD Door can open when the land of CN7 at the foil side is short-circuited with the finger.

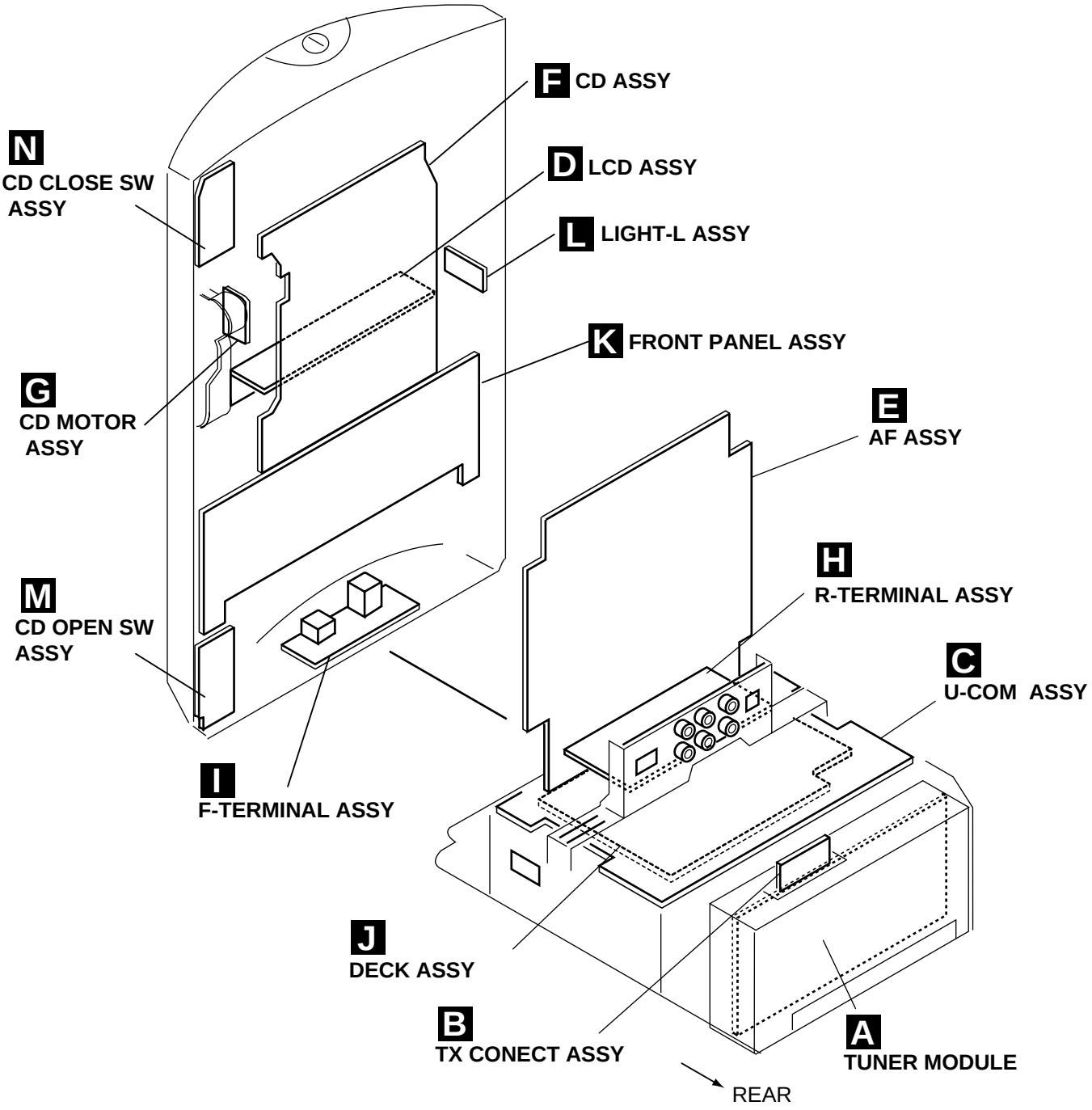


② **FM/AM TUNER Module for European model**

Shield Case is being soldered in the European model. Remove solder in the case such as exchange.



7.1.4 PCB LOCATION



7.2 PARTS

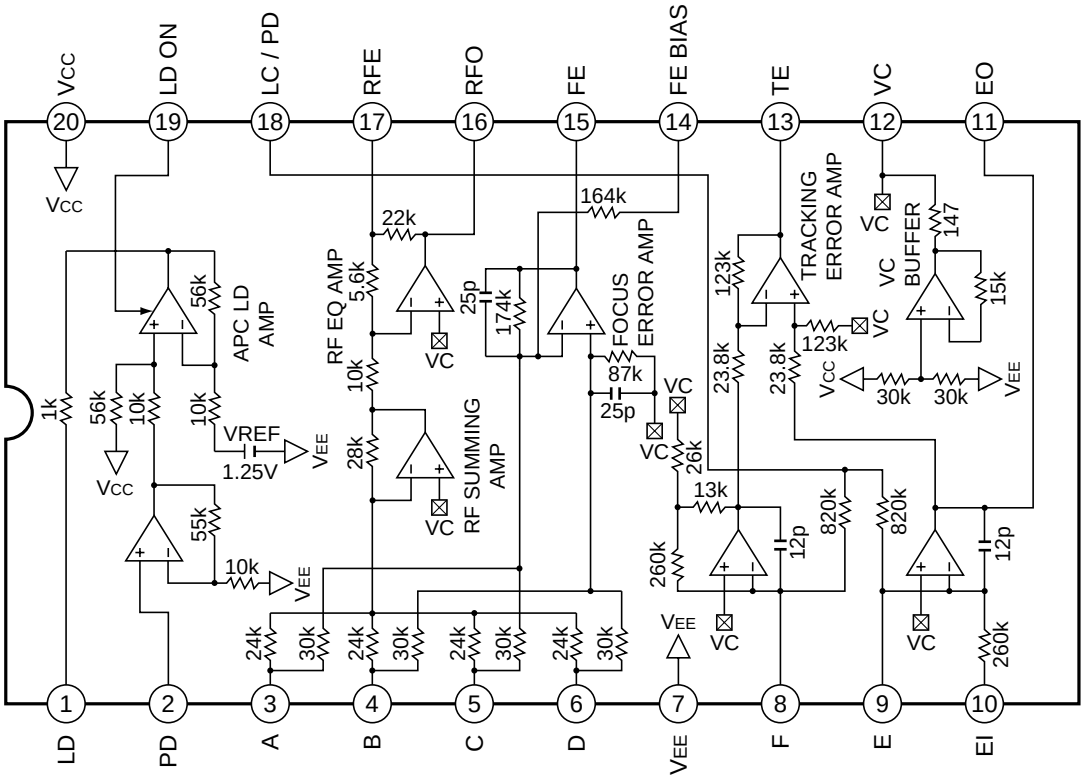
7.2.1 IC

• The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

■ CXA1821M (CD ASSY : IC1101)

• RF AMP. IC

●Block Diagram



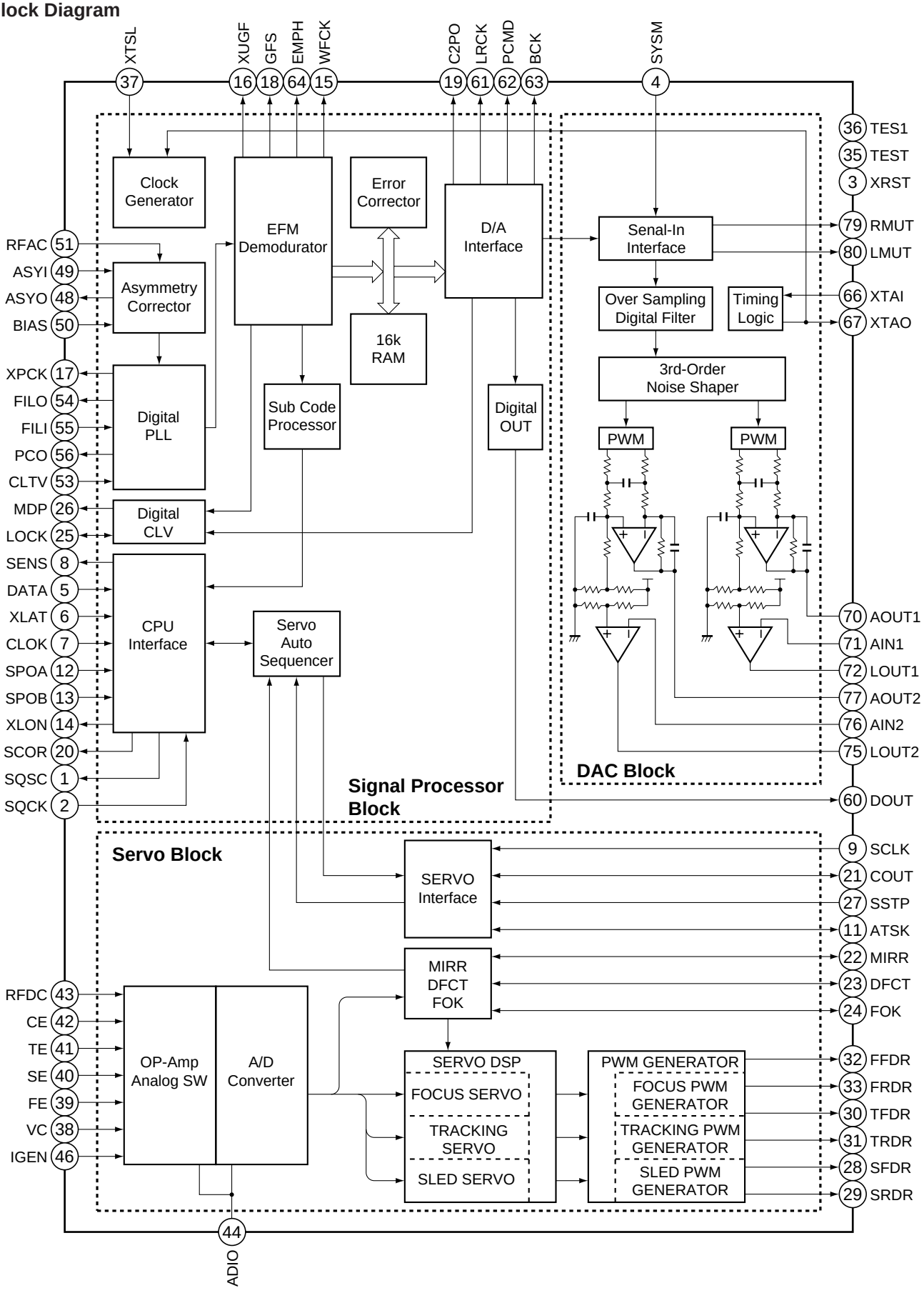
●Pin Function

No.	Pin Name	I/O	Function	No.	Pin Name	I/O	Function
1	LD	O	APC amplifier output	11	EO	–	Gain adjust the signal which was input from pin 9.
2	PD	I	APC amplifier input	12	VC	O	DC voltage output of (VCC+VEE)/2
3	A	I	RF amplifier and FE amplifier input	13	TE	O	Tracking error amplifier output F-E signal is output.
4	B			14	FE BIAS	I	Pin for focus bias adjustment
5	C			15	FE	O	Focus error amplifier output
6	D			16	RFO	O	RF amplifier output
7	VEE	–	Ground pin	17	RFE	–	Pin for RF amplifier equalization
8	F	I	Tracking error amplifier input.	18	LC/PD	I	Bias pin VCC : LC , OPEN : PDIC
9	E			19	LD ON	I	ON/OFF switching pin of APC amplifier VCC : ON, VEE : OFF
10	EI	–	Gain adjust the signal which was input from pin 9.	20	VCC	–	Power supply pin

■ CXD2587Q (CD ASSY : IC1201)

• **SERVO IC**

●Block Diagram



●Pin Function

¡N-o.	Pin Name	I/O	Function	No.	Pin Name	I/O	Function
1	SQSO	O	SubQ 80-bit, PCM peak and level data output CD TEXT data output	41	TE	I	Tracking error input
2	SQCK	I	Clock input for SQSO readout	42	CE	I	Center servo analog input
3	XRST	I	System reset Reset when "L"	43	RFDC	I	RF signal input
4	SYSM	I	Mute input Mute when "H"	44	ADIO	O	OP amplifier output
5	DATA	I	Serial data input from CPU	45	AVSS0	–	Analog GND
6	XLAT	I	Latch input from CPU Serial data is latched at the falling edge.	46	IGEN	I	Constant current input for OP amplifier
7	CLOK	I	Serial data transfer clock input from CPU	47	AVDD0	–	Analog power supply
8	SENS	O	SENS output to CPU	48	ASYO	O	EFM full-swing output ("L"=VSS, "H"=VDD)
9	SCLK	I	Clock input for SENS serial-data readout	49	ASYI	I	Asymmetry comparate voltage input
10	VDD	–	Digital power supply	50	BIAS	I	Constant current input of the asymmetry circuit
11	ATSK	I/O	Input and output for unti-shock	51	RFAC	I	EFM signal input
12	SPOA	I	Microcomputer extended interface (input A)	52	AVSS3	–	Analog GND
13	SPOB	I	Microcomputer extended interface (input B)	53	CLTV	I	VCO control voltage input for master
14	XLON	O	Microcomputer extended interface (output)	54	FILO	O	Filter output for master PLL (Slave=digital PLL)
15	WFCK	O	WFCK output	55	FILI	I	Filter input for master PLL
16	XUGF	O	XUGF output MNT1 and RFCK output by switching the command.	56	PCO	O	Charge pump output for master PLL
17	XPCK	O	XPLCK output MNT0 output by switching the command.	57	AVDD3	–	Analog power supply
18	GFS	O	GFS output MNT3 and XRAOF output by switching the command.	58	VSS	–	Digital GND
19	C2PO	O	C2PO output GTOP output by switching the command.	59	VDD	–	Digital power supply
20	SCOR	O	Outputs "H" when either subcode sync. S0 or S1 is detected.	60	DOUT	O	DIGITAL OUT output
21	COUT	I/O	Input and output of track-number count signal	61	LRCK	O	D/A interface LR clock output f=Fs
22	MIRR	I/O	Mirror signal input and output	62	PCMD	O	D/A interface Serial data output (two's complement, MSB first)
23	DFCT	I/O	Defect signal input and output	63	BCK	O	D/A interface Bit clock output
24	FOK	I/O	Focus OK signal input and output	64	EMPH	O	Outputs "H" when the playback disc has emphasis, and "L" when there is no emphasis.
25	LOCK	I/O	GFS is sampled at 460Hz;when GFS is "H", this pin outputs "H". If GFS is "L" eight consecutive samples, this pin outputs "L". Input when LKIN="H".	65	XVDD	–	Power supply for master clock
26	MDP	O	Servo control output of spindle motor	66	XTAI	I	Crystal oscillation circuit input Input the external master clock via this pin.
27	SSTP	I	Detection signal input of disc innermost	67	XTAO	O	Crystal oscillation circuit output
28	SFDR	O	Sled drive output	68	XVSS	–	GND for master clock
29	SRDR	O		69	AVDD1	–	Analog power supply
30	TFDR	O	Tracking drive output	70	AOUT1	O	L ch analog output
31	TRDR	O		71	AIN1	I	L ch OP amp. input
32	FFDR	O	Focus drive output	72	LOUT1	O	L ch LINE output
33	FRDR	O		73	AVSS1	–	Analog GND
34	VSS	–	Digital GND	74	AVSS2	–	Analog GND
35	TEST	I	TEST pin : normally GND	75	LOUT2	O	R ch LINE output
36	TEST	I		76	AIN2	I	R ch OP amp. input
37	XTSL	I	Crystal selector input "L":16.9344MHz , "H":33.8688MHz	77	AOUT2	O	R ch analog output
38	VC	I	Center voltage input	78	AVDD2	–	Analog power supply
39	FE	I	Focus error signal input	79	RMUT	O	R ch zero detection flag
40	SE	I	Sled error signal input	80	LMUT	O	L ch zero detection flag

Notes)

- PCMD is an MSB first. two's complement output.
- GTOP is used to monitor the frame sync protection status. (High:sync protection window released)
- XUGF is the negative pulse for the frame sync derived from the EFM signal. It is the signal before sync protection.
- XPLCK is the inverse of the EFM PLL clock. The PLL is designed so that the falling edge of XPLCK and the EFM signal transition point coincide.
- GFS goes high when the frame sync and the insertion protection timing match.
- RFCK is derived with the crystal accuracy. This signal has a cycle of 136µs.
- C2PO represents the data error status.
- XRAOF is generated when the 16K RAM exceeds the ±4F jitter margin.

■ PDG242 (U-COM ASSY : IC5501)

• **System Control IC**

●Pin Function

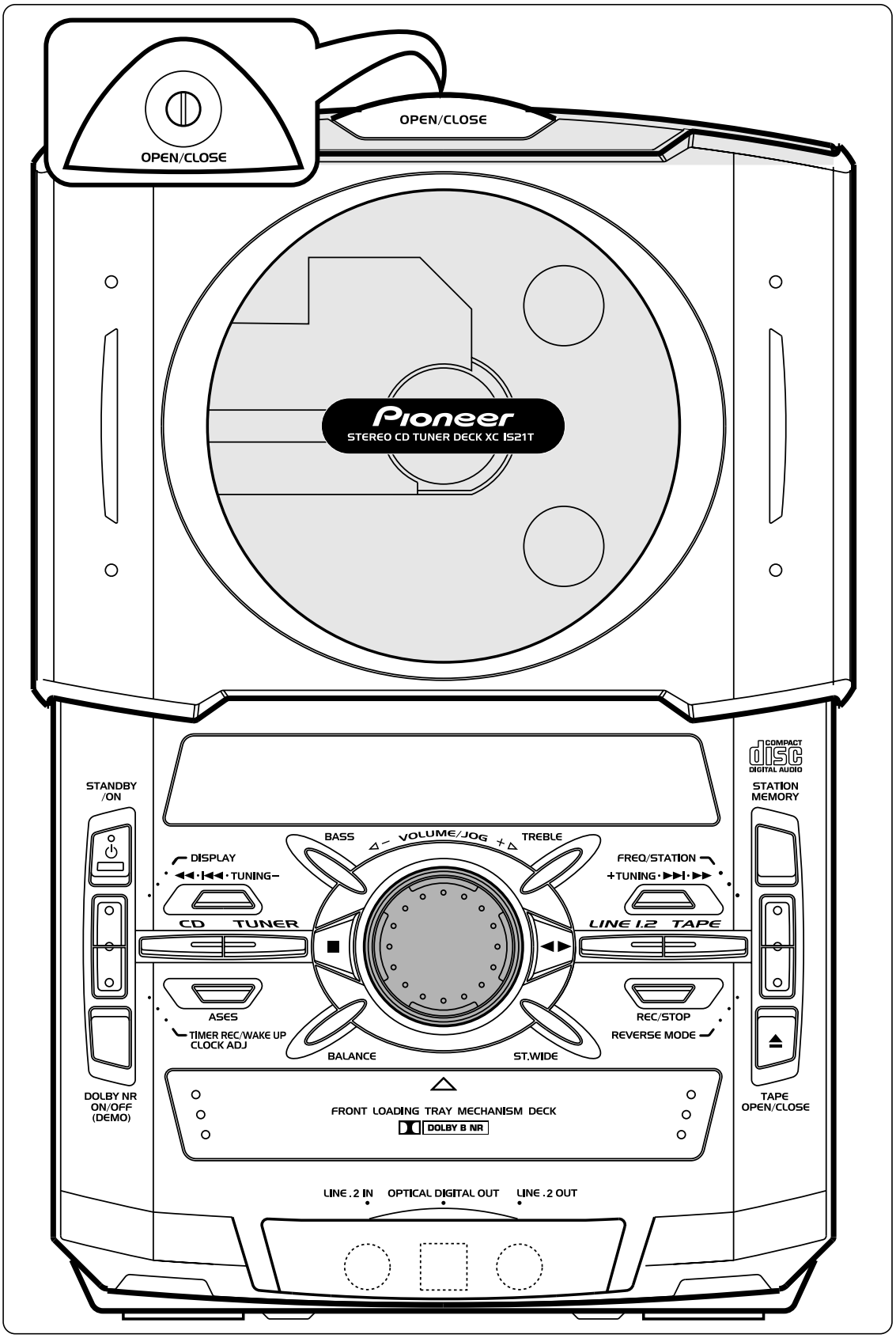
No.	Name	I/O	Description
1	TCRECF	I	Mecha RECF SW
2	TCTIN	O	TAPE Tray load in
3	TCTOUT	O	TAPE Tray load out
4	LCD POWER	O	LCD ON/OFF
5	LIGHT	O	LCD Buck light control
6	CDDSW1	I	CD Door detection Input 1
7	CDDSW2	I	CD Door detection Input 2
8	STBYLED	O	Standby LED control
9	CDDSW3	I	CD Door detection Input 3
10	CDDSW4	I	CD Door detection Input 4
11	CDCOLSE	O	CD Door close drive output
12	CDOPEN	O	CD Door open drive output
13	CD LDON	I	CD laser diode control output
14	CDINSID	I	CD inside SW input
15	CDSCLK	O	CD automatick adjustment input clok
16	CDSENS	I	CD LSI replay (GFS, FOK)
17	CDCLK	O	CD LSI clock
18	CDLAT	O	CD LSI latch
19	CDDATA	O	CD LSI data
20	CDSYSM	O	CD decoder mute control
21	CDRESET	O	CD LSI reset
22	CDCONT	O	CD LSI power control
23	CDMUTE	O	CD mute control
24	LINE2 MUTE	O	Line2 mute control
25	LINE1 MUTE	O	Line1 mute control
26	LINE CONT	O	Line ATT control
27	VOLCE	O	E-Volume LSI chip enabled
28	VOLDATA	O	E-Volume LSI data
29	SCLK	O	System bus clock
30	RST	-	Reset
31	EXTAL	-	Oscillator pulses
32	XTAL	-	(12MHz)
33	Vss	-	GNDD
34	VOLCLK	O	E-Volume LSI clock
35	SYSPOW	O	System power control
36	AVSS	-	GNDD
37	AVREF	-	+5V
38	KEY1	O	Key input
39	KEY2	O	Key input
40	KEY3	O	Key input

No.	Name	I/O	Description
41	PROTECT	O	Protect detection input
42	SIMUKE	O	Model type select input
43	ST/TUNE	O	TX STREO/TUNED input
44	JOGIN	O	Multi JOG input
45	-	-	-
46	SDATA	I/O	Systembus data
47	SREQ	I/O	Systembus reqest
48	LCDCLK	O	LCD micro computer clock
49	LCDCE	O	LCD micro computer CE
50	LCDDAT	O	LCD micro computer data
51	CDSQCK	O	CD SUBQ clock
52	CDSQSO	I	CD SUBQ data input
53	LCDRST	O	LCD micro computer reset control
54	TOUCH	I	Touch sencer input
55	MS	I	MS Signal input
56	-	-	-
57	RDSDATA	I	RDS data input
58	PDSPOW	O	RDS power control
59	BEEP	O	beep control
60	ACPULS	I	AC puls input
61	REMIN	I	Remote control input
62	CDSCOR	I	CD SUBQ level input
63	RDSSCLK	I	RDS clock input
64	TXPOW	O	TX poer control
65	TXCE	O	TX LSI chip enabled
66	TXODAT	O	TX LSI data output
67	TXCLK	O	TX LSI clock
68	TXIDAT	I	TX LSI data input
69	TXMUTE	O	TX mute control
70	SPCONT	O	Speaker relay control
71	SYSMUTE	O	System mute control
72	VDD	-	+5.0V
73	NC	-	-
74	TCSENS	I	Reel pulse
75	EXPCE	O	EXPIC for CE control
76	TCOPEN	O	Tray open SW
77	TCCLOSE	O	Tray close SW
78	TCHALF	I	Mechanism HALF SW
79	TCMODE	I	Mechanism mode SW
80	TCRECR	I	Mechanism RECR SW

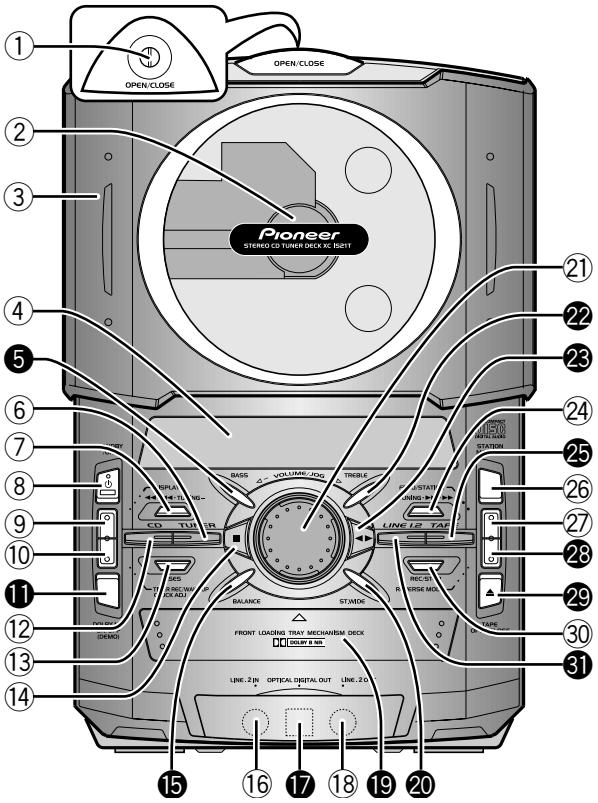
8. PANEL FACILITIES AND SPECIFICATIONS

8.1 PANEL FACILITIES

■ Front Panel



[CD Tuner Deck]



① **CD cover OPEN/CLOSE touch sensor**

② **CD spindle**

③ **CD slide cover**

④ **Display window**

❺ **BASS button**

⑥ **TUNER button**

⑦ **◄◄ • ⏮◄◄ • TUNING – button**

⑧ **STANDBY/ON button and standby indicator**

This is the power switch.

ON : When set to the ON position, power is supplied and the unit becomes operational.

STANDBY : When set to the STANDBY position, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness.

Energy-Saving Design

This product has been designed to reduce energy consumption when the unit is in the power off (standby) mode.

- Consult the Specifications for the power consumption in standby mode.

⑨ **DISPLAY button**

⑩ **TIMER REC/WAKE UP/CLOCK ADJ button**

⓫ **DOLBY* NR ON/OFF (DEMO) button**

*● Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.

● "DOLBY" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

⑫ **CD button**

⑬ **ASES button**

⑭ **Stop (■) button**

⓯ **BALANCE button**

⑯ **LINE 2 IN jack**

⓱ **OPT (Optical) OUT jack**

⑱ **LINE 2 OUT jack**

⓳ **Cassette tray**

⓴ **ST. (Stereo) WIDE button**

㉑ **VOLUME/JOG dial**

㉒ **TREBLE button**

㉓ **Play/direction (◄ ►) button**

㉔ **TUNING + • ►►⏭ • ►► button**

㉕ **TAPE button**

㉖ **STATION MEMORY button**

㉗ **FREQ (Frequency)/STATION button**

㉘ **REVERSE MODE button**

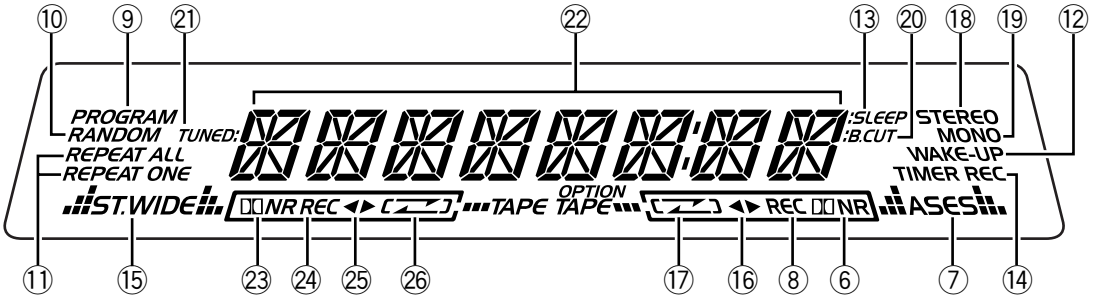
㉙ **TAPE OPEN/CLOSE (⏏) button**

㉚ **REC/STOP button**

㉛ **LINE 1, 2 button**

■ Display

[CD Tuner Deck]

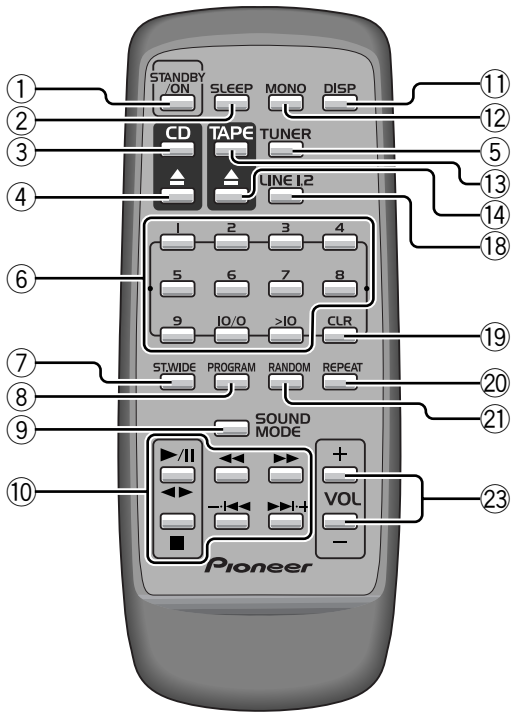


Display window

⑥ Lights when Dolby NR on optional cassette deck is ON.
⑦ Lights when using A.S.E.S. (Auto Synchro Editing System).
⑧ Lights when optional cassette deck is set to recording mode.
⑨ Lights during program mode.
⑩ Lights during random playback.
⑪ Lights during repeat playback.
⑫ Lights when setting wake-up timer.
⑬ Lights during sleep timer operation.
⑭ Lights when setting timer recording.
⑮ Lights during stereo wide sound mode.
⑯ Lights to indicate tape direction of optional cassette deck.
⑰ Lights to indicate reverse mode of optional cassette deck.
⑱ Lights during FM stereo reception.
⑲ Lights when FM monaural reception is ON.
⑳ Lights when setting Beat Cut function.
㉑ Lights during radio broadcast reception.
㉒ Indicates frequency and major operation status.
㉓ Lights when Dolby NR is ON.
㉔ Lights when cassette deck is set to recording mode.
㉕ Lights to indicate tape direction of cassette deck.
㉖ Lights to indicate reverse mode of cassette deck.

■ Remote Control Unit

[CD Tuner Deck]



Remote control buttons with the same name or mark as buttons on the front panel of the CD Tuner Deck control the same operations as the corresponding front panel buttons.

① **STANDBY/ON button**

② **SLEEP button**

③ **CD button**

④ **CD cover open/close (⏏) button**

⑤ **TUNER button**

⑥ **Digit (1 – 9, 10/0, >10) buttons**

⑦ **ST. (stereo) WIDE button**

⑧ **PROGRAM button**

⑨ **SOUND MODE button**

⑩ **CD/MD/TAPE/TUNER operation buttons**

[CD/MD operation]

►/II : Play/pause button
■ : Stop button
◄◄, ►► : Manual search buttons
I◄◄, ►►I : Track search buttons

[TAPE operation]

◄ ► : Play button
■ : Stop button
◄◄, ►► : Fast forward, fast reverse buttons
I◄◄, ►►I : Music search buttons

[TUNER operation]

◄◄, ►► : Frequency down, up buttons
–, + : Memory station no. decrement, increment buttons

⑪ **DISP (display) button**

⑫ **MONO button**

⑬ **TAPE button**

⑭ **TAPE open/close (⏏) button**

⑱ **LINE 1, 2 button**

⑲ **CLR (clear) button**

⑳ **REPEAT button**

㉑ **RANDOM button**

㉓ **VOL (volume) +, – button**

8.2 SPECIFICATIONS

■ Amplifier Section

Continuous average power output of 55 watts* per channel, min., at 6 ohms, from 60 Hz to 15,000 Hz with no more than 1.0 %** total harmonic distortion.

* Measured pursuant to the Federal Trade Commission's Trade Regulation rule on Power Output Claims for Amplifiers.
** Measured by Audio Spectrum Analyzer.

■ FM Tuner Section
- Frequency Range ..... 87.5 - 108MHz
- Antenna ..... 75 Ω, unbalanced

■ AM Tuner Section
- Frequency Range ..... 531 kHz - 1,602 kHz (9 kHz step); 530 kHz - 1,700 kHz (10 kHz step)
- Antenna ..... Loop antenna

■ Compact Disc Player Section
- Type ..... Compact disc digital audio system
- Usable discs ..... Compact discs
- Wow and Flutter ..... Limit of measurement (0.001%) or less (EIAJ)

■ Cassette Deck Section
- System ..... 4-track, 2-channel stereo
- Heads ..... Recording/playback head x 1
  Erasing head x 1
- Motor ..... DC Servo motor x 1
- Tape type ..... TYPE I (Normal), TYPE II (High/CrO_2)

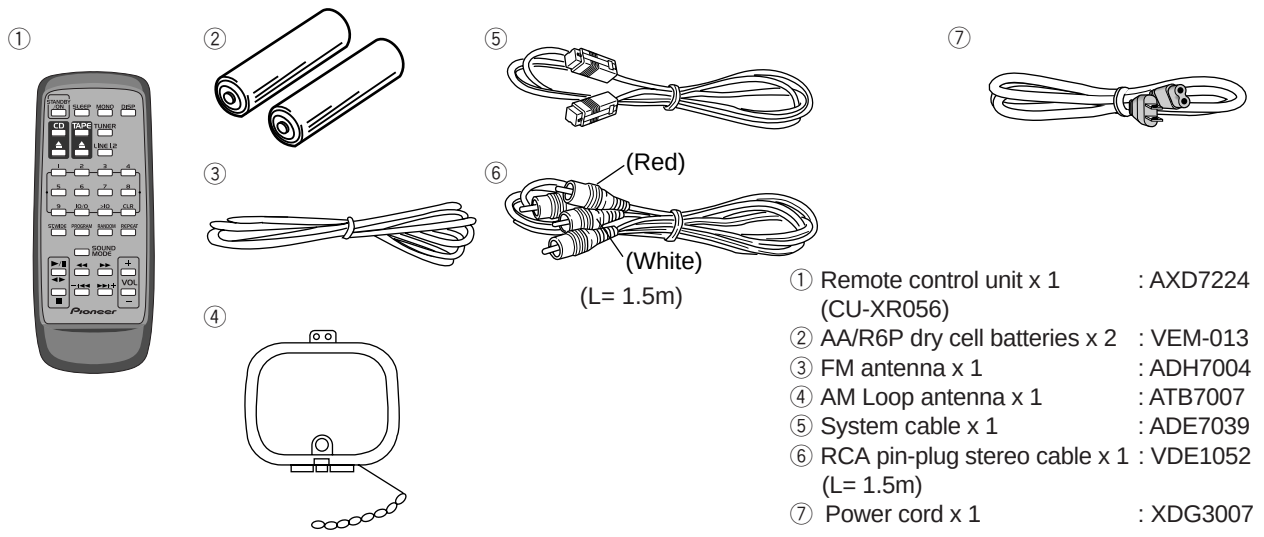
■ Micellaneous (Stereo power amplifier : M-IS21)
- Power Requirements ..... AC120 V, 60 Hz
- Power Consumption ..... 120 W, 160 VA
- Power Consumption in standby mode ..... 1 W
- Dimensions:
  - CD Tuner Deck ..... 205 (W) x 300 (H) x 237 (D) mm
    8-1/16 (W) x 11-13/16 (H) x 9-5/16 (D) in.
  - Power Amplifier ..... 150 (W) x 300 (H) x 233 (D) mm
    5-7/8 (W) x 11-13/16 (H) x 9-3/16 (D) in.
- Weight:
  - CD Tuner Deck ..... 2.9 kg (6 lb 6 oz)
  - Power Amplifier ..... 4.0 kg (8 lb 13 oz)

■ Accessories
- Operating Instructions 2
- Warranty Card 1
- FM antenna 1
- AM loop antenna 1
- Remote control unit 1
- Dry cell batteries (AA/R6) 2
- Power cord 1
- RCA pin-plug stereo cable 1
- System cable 1

■ Accessories
- Speaker cords 2

NOTE:
Specifications and design subject to possible modification without notice, due to improvements.

■ Accessories



① Remote control unit x 1 (CU-XR056) : AXD7224
② AA/R6P dry cell batteries x 2 : VEM-013
③ FM antenna x 1 : ADH7004
④ AM Loop antenna x 1 : ATB7007
⑤ System cable x 1 : ADE7039
⑥ RCA pin-plug stereo cable x 1 (L= 1.5m) : VDE1052
⑦ Power cord x 1 : XDG3007